A STUDY ON LASUNATHABITHAM

Dissertation submitted to

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(Branch IV – Kuzhanthai Maruthuvam)

DEPARTMENT OF KUZHANTHAI MARUTHUVAM

GOVERNMENT SIDDHA MEDICAL COLLEGE

PALAYAMKOTTAI – 627 002.

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BONAFIDE CERTIFICATE

This is to certify that the dissertation entitled "**A STUDY ON LASUNATHABITHAM"** is a bonafide work done by **Dr.M.SUGAVANESHWARI, GOVERNMENT SIDDHA MEDICAL COLLEGE, PALAYAMKOTTAI** in partial fulfillment of the university rules and regulation for award for **M.D(SIDDHA), BRANCH-IV KUZHANTHAI MARUTHUVAM** under my guidance and supervision during the academic year **2013-2016 OCTOBER.**

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DECLARATION BY THE CANDIDATE

I hereby declare that this dissertation entitled "**A STUDY ON LASUNATHABITHAM**" is a bonafide and genuine research work carried out by me under the guidance of **Prof**.**DR.D.K.SOUNDARARAJAN, M.D(S).,** Head Of The Department, Post Graduate Department of **Kuzhanthai Maruthuvam** Govt. Siddha medical College, Palayamkottai and the dissertation has not formed the basis for the award of any Degree, Diploma, Fellowship or other similar title.

Date :

Place :Palayamkottai

Signature of the Candidate

DR.M.Sugavaneshwari

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INTRODUCTION

The siddha system of Medicine is one of the oldest ancient Medicine system in the world. The word siddha comes form the word "Siddh " " Siddh" means heavenly bliss. Siddhars are people who achieved siddhi. They were philosophers, healers and men with supernatural powers.

While they were apparently the miracle men, the medical science they practiced is Siddha medicine

The Siddha system of medicine stress on positive health and gives physical, mental, moral, social and spiritual welfare for an individual human.

'm z l j j y c s sNj g z l k
g z l j j y c s sNj m z l k"

- r l l K d e f z L

Based on this above words, Siddhars maintainted their physical and mental health and they got spiritual powers for giving good heath of an individuals, free from diseases.

'c a i u t shf F k c ghak mw eNj
c l k i g t shjNj d ey c a h t shjNjNd"

- j Ukej uk

The basic five elements of the universe namely Earth, water, Fire, Air, and space, it corresponds to the five senses of our human body and they were fundamentals of all the carnal things in the universe including Man. The Man is a miniature of the entire universe and every second changes in the universe affects man and vice-versa.

For the importance of maintaining good health in the children. The Siddhars were separately mentioned many diseases and treatment, the paediatirc medicine is called as Balavagadam (or) Kuzhanthai Maruthuvam. Shortly Kuzhanthi Maruthuvam has got more importance than other branches of medicine in our siddha system and also the treatment aspect of paediatric medicine is very special inimiatable.

In Paediatirc age group Infectious diseases and nutritional deficiencies are very common and affect their growth and developemt. Of all the paediatirc infectious diseases. **LASUNATHABITHAM (tonsillitis)** is one of the most common diseases.

Treatment of the infections diseases in children is very important because it spoils the children growth both physically and mentally.

So, the Management of **LASUNATHABITHAM** is very special, tonsils are the warriors of lungs. Infection of Tonsils leads to affect the lungs and immune system of children.

Keeping this in mind for bringing out an effective and special treatment to **LASUNATHABITHAM** from our special Siddha medicine system the author has under taken the dissertation work with drug **LASUNATHABITHA KUDINEER.**

The author tentatively does this work to the honour of siddha system of Medicine.

AIM AND OBJECTIVE.

AIM:-

The principle aim of the present study is to evaluate the efficacy of the trail drug **LASUNATHABITHA KUDINEER** in the treatment of **LASUNATHABITHAM.**

OBJECTIVES:-

1. The main objective of the present study is to create awareness about the siddha system and to highlight the efficacy of Siddha drug among the public people.
2. To study the Casue, clinical Features, diagnosis and investigation of lasunathabitham through various siddha literatures.
3. To figure out the biochemical and pharmacological activites of the drug.
4. To make the correspondent study of the siddha and modern aspect of the disease.
5. To study the pre- clinical analytical standardization and safety study in the experimental formulation of lasunathabitha kudineer.
6. To flash the solitary diagnostic procedure mentioned in Siddha literature of the disease lasunathabitham.
7. To oversight the clinical trial and to final out the efficacy of Lasunathabitha kudineer for the cure of the disease Lasunathabitham.

REVIEW OF LITERATURE

SIDDHA ASPECT

,yRz jhgpjk

NtW ngahfs

ngah fuzk :

'yRz jhgpjk" vDk nrhy gy tpsffSld gyNtW Ehyfs vLjjpakGfpwJ.

mitfSs› TV rhkgrptk gpsis kUjJt nrhy mfuhjpapy› fofhZkhW ',yRz jhgpjk" vDk nrhy tpsffggLfpwJ. (1-6)

Pg:-223

1. mz zhf fowrp

Nkythapd fogGwjjpw fhZk jhgpjk.

2. cz zhffowrp

mz zjjpypUfFk rijfNfwgLk Ntffhl.

3. cz zhfFjjy

csehfF ezL tsheJ njhz iliaf Fjjpepwwy.

4. cz zhfF Nuhfk

cz zhffpy rij tsheJ tffjij cz lhffp ,UkiyAk› mWFjiyA Kz lhfFk Neha.

5. mz zhfFj J}W jhgpjk [F zgghlk jhJ rt tFgG]

-kU.,uh.jpahfuh[d› vy.I.vk. Pg.No:-645

6. njhz ilapy tsUk rij - NehafSfF rpjj ghpfhuk

-kU.k.rz KfNtY.vr.gp.[.vk.(99)

7.njhz il fpuejp tffk - itjjpak (monthly edition from srilanka)

8. njhz il J}W
9. njhz ilf flb

10. njhz il NehT

Mjhuk - lexicon vol 4

jkpo mfuhjp 2092›2093.

,ay:

njhz ilaΦYk› khhgΦYk NfhioAz lhfΦ mjid ntsΦNawWtjwFk› fgk› gΦjjk ,it jddΦiy gΦwoeJ njhz il› cz zhfF MfΦa ,lqfsΦy jhgΦjjij (Gz iz) cz lhfFk. ,jid 'cz zhfF jhgΦjk" (m) ',yRz jhgΦjk" vdgh.

-gΦsisgΦzΦkUjJtk-
ghfk-1
gffk-111

,yRzk+jhgΦjk

- ,yRzk
  ,yRzk vdgJ njhz ilaΦd mffk gffqfsΦy nkddziyjjΦd Kd gΦd eΦiyfSfF ,ilaΦy gffjJf nfhdwha ,UffΦw Ntggqnfhlil tbtkhd ,uzL cWgGfshFk.
- jhgΦjk
  jhgΦjk vdgJ clkgΦd vggFjΦaΦyhtJ #L czlhfΦ rΦteJ tyΦAld czlhFk tffk. NkYk mt cWgGfsΦy mowrΦ VwgLk. vdNt› yRz jhgΦjjjΦy yRzk jhgΦjkileJ rΦtej eΦwkiljy› Ruk njhz ilaΦy tyΦAld $ba tffk MfΦa FwΦFzqfs VwgLk.

-clw$W

Neha tUk toΦ:-

fhuzk:-
'njhz iljdΦy Neha ZFk fhuzejhd
#lrkjha nrhyYfΦNwd RfkhaNfS
mzlh Kjy Njthfis mgkhdΦjJk
mbahiukΦf goΦjJ jhlrzΦjJk
nfhzltiuNgzhky jha jeijfFk
nfhLikkΦf nraJ NfhgΦjNj jhd
gzbaJ eΦiwa czL grΦjNjhhffah
ghjfwFk njhzil NehaDFJ nkdNw".

nghUs:-

njhz ilapy; vOk; Nehapd; fhuzjij tpsfff; Nfsha; kdpjhfs; Kjy; Njthfis mgkhdpjjjhYk; rpt gfjhfis gopjJk; mhggkhf Ngrpajhyk; jdid mzbathfis cjhrdk gLjjpajhYk; jha; jeijahfis Nfhgpj;J nfhLikg gLjjpajhYk; jhd; edwhf Grpj;J gpj;J fplgNghUfF juhjjhYk; njhz il Neha; VwgLfpwJ.

‘NehaJ jd; Kd; nrdk; rhgjjhYk;
neheJ kdnjhpeJ jpid ittjhYk;
jhafkhk; jeij jha; FLkgj; Njhhfs;
jid mjpfk; tUejplNt nraj; Njh\k;
khakjha; teJ gwwp tUjjk; nraAk;
tifaJ jhd; fhajjhNy; VkjjhYk;
fhakjpy; NtnyOkgp ehjhNdwW
fhlLklh njhz il NehapJ jhd; fhNz”.

nghUs:-

NkYk; Kd; nrdkjjpy; nraj; ghtr; nrayhy; tpisej rhgjjhYk; jha; jeij; FLkgjjhh; kdk; neheJ Vrpajhyk; fhajjhYk; Vkjjhyk; clypy; Nehej ghjpgghy; eh; Nfhhj;J njhz ilapy; Neha; vOk.

- Foeij fz-nrtp-njhz il
(kUjJtk) gffk-45;46
Dr.s.rpjkgujh Zggpsis.

‘nrhyypa nrdd $wwhy; Jlh; gotpidahYk; teJ
eyyt DWggpd rhheJ kUtpa Njh\jjhYk;
myyfrpurpy; euhy; mdida;y ghypdhYk;
fyyf eukgpy; jhtp fgkJ teJ rhUk.

nghUs:-

fhk tpidahYk> cWgig rhhej Njh\jjhYk jiyfF jz zh Cwwp rhptu JtllhJ ,UjjyhYk> mdidapd jhaghypd NfllhYk> Foeijapd clypd eukgpy Njh\k jhtp fgk VwgLk.

'rhUNk rpurpy epdW jifjjpLk FtL njhzil
thUNk tpyhT neQR kUtpa cWgG jddpy
eUNk ciweJ fgKk epdwJ twlrpahfp
$UNk nfhL euhfp Foeijpky mUnkdNw.

nghUs:-

rpurpypUeJ FtL> njhzil> tpyh> neQR Kjypa cWgGfspy ciwej fgk> twlrpahfp Foeijfspy euhf MFk.

-Foeij Nehafs ghfkV
gffk1>2
(rpjkgujhDg gpsis)

Neha tUk topf:-

- kpF Fsphrrp> kpFej ntggk css nghUlfis kpFjpahf czzy.
- ,dpgG> GspgG RitAss nghUlfis mjpfk czZtjhYk.
- Fsphej eh> gioa NrhW Mfpatwiw clnfhstjhYk.
- fpoqF tiffis mjpfk czgjhYk.
- JhR> Giffspy <LgLtjhYk ,eNeha czlhfpwJ..

-A+fp itjjpa rpejhk zp 800

Nehapd KwFwpF zqfs:-

- njhzil cyhjy
- ,Ukp ,Ukp njhzilia rptff nrajy.
- njhzilapy VNjh G+rpaJ NghYk> njhzil ,WffpaJ NghdWk czhrrpAzlhjy.

'Nehaehly ghfk-II
gffk-70

Nehapd; FwpF zq fs:-

- njhz il Gzgllj dhy typ Vwgly.
- njhz il rptjjy
- FuNyhir Fiwjy
- Ruk fhajy
- ,Uky
- %rR jLkhwy
- fhJ typ
- %ffpypUeJ eh tbjy
- %ffilgG
- jiyfdjjy
- cly tdikf Fiwjy
- cz TnghUlfs; tpOqf Kbahik.

rpqq; Nrwg Fzk:

‘csehfF njhz il gwwp Cdkha tqfp neheJ
ntssNt fgkteNjwp ntwpruk miyapNw
csseh ghy nfhsshJ cWgngyyhk nteJ thLk
KssNt rpqq; Nrwgk kuz nkdW vz zplhNa…”

nghUs:-

rpqq; Nrwgdjjpd; fhuzkhf csehfF› njhz il ,twwpy; tffk; vOeJ› nehkgyk; jUk. fgk; vOeJ RuKk; mdyha; fhAk. Foeij ghy; FbahJ. cWgngyyhk; nteJ thLk; rpqq; Nrwgdk; NfL tpistpffhJ vdgij mwpaTk.

tiffs:-

,yRz jhgpjjjpd; tiffs; gyNtW Ehwfspy; gy; tpjkhf Fwpffgg lLssd. mitfSs; ‘4448 tpahjpfs” vDk; Ehypy; lhflh.r.muqfuhrd; Mrphpahpd; $wWggb›

‘tukgiljJ ,yqFq; fhjjp
kz Z NfOk tz zj
jukgiljJ ,yqFk; vdg
cz ikahy kdpjh jqfs

rpuqfNeha jhNd nrggpr
NrUk Nehapd Ngh vypsk
guej ewfytpNahL
gzgpdh Yiuff YwNwd".

nghUs:-

Nkdik nghUejp tpsqFk VO cyfjjpdUk czikahd kdpjhfSfFk rpuk Kjy vyyh mqfqfspYk tUk Nehapd ngaiu vyyhk vd mwptpdhy gz NghL nrhyYfpdNwd.

1. .....

'ehtJ jddpy ehwgjnjhdgJ
NkT› rpW ehtpy tpsqfpLkhW
njhzil mjdpy #oejpLkgpzpfs
fzlk tiufFk foW EhwW ,UgJ

-4488 gffk -24

nghUs:-

- cs ehfF Nehafs 6 tiffs
- njhzil fOjJ Mfpa ,lqfspy tUk Nehafs 120 vd Mrphpah $wpapUffpwhh.

2. 'Njiuah thfl Ehypy Fwpggpll thW"

.....

'cjpur raKk cahej ehf fLgGk
fzle jddph ftpej mlffKk.....

gffk 223.

nghUs:-

clypy lak kpFeJ› eh fLgGk› njhzilapy fgk miljJf nfhsSk.

3. **'MFk vz ehdF jejkjdpy Neha ehwgj ijejhk**
Njhifia rpFit jddpy NuhfKQ nrhypYk fhiy
ehfkh Kdp ciujjhh KggjJ ehyh vd
ghfkh mwp cz zhffpy gwW Neha ,UgjhNk".

-ehfK dp jiyNeha
gffk (2)

nghUs:-

ehfK d‰ j i y Neha Ehy‰d $wWggb› c s z h f F Neha f s 20 t i fggLk.

4. r‰j j h mW i t kUj J t Ehy‰y $w‰agb c s ehf F-20 t i fggLk.

- Dr. c.s. c j j kuha d

g f f k-98

5. ruNge j‰u i t j j‰a r‰uNuh f k v D k Ehy‰d $wWggb.

-n j h z i l Neha f s-15 t i f c z L.

6. [t u l rhk‰h j k v D k c i wa‰d $wWgb n j h z i l Neha f s-18 t i f f s.

-Rgg‰uk z ‰a g z b j h

g f f k 253.

e‰ z f Fwy fkky:

‘Fuy t i s e‰ z qNfh i o n fh z L j l t y Nghy

t‰uT t Og i gf F z eh N t l f i f - j UNky

t z gNgr rw‰t‰d i k thanghWj Jg Ngry ‘

nghUs:-

‘e‰ z f Fuy fkky Neha‰y› r‰W t a j‰dhf F s‰hfhwW› F s‰hej eh› c z T , twwhy n j h z i l r‰teJ laq $b n j h z i la‰y r i j t s Uk.

- , r r i j eh S f F eh s t sheJ› Fuy t i s i a , W f f‰› Fuy fkky Neh i a c z lhf Fk.
- , j J l d Ruk› n j h z i l Neha› thaehwwk› %f f‰y eh t b j y› fhj‰y ro t b j y› , Uky NjhdWj y› %rRj j i lgl y K j y‰a Fw‰F z q f i s Ak fhl Lk v dW $w‰A s s dh.

-r‰j j kUj J t k (nghJ)

K f F ww N t WghL:-

- fg] jhdkhfpa njhz ilapy moy Fwwkhd J j d d s tpy kpFjpgglL› t spfFwwj i i j j J i z f nfhz L› t f f k› ,yRz k rptjjy› typ Kjypa Fwp F z q f i s c z lhff $ba j d i k c i l a j h f mikfpwJ.

‘kpfpDk F iwapDk Neha nraAk E}Nyhh
t spKjyh n t z zpa %dW”

-jpUfFws

vDk NkwNfhspd gb ,eNeha epiyapy KfFwwqfSk j d dpiyapy jphpeJ epwfpwJ. j d dpiyapy rj thpak mjpfKila c z Tg nghUlfs (Fsphej j z z h› rUFfs Cwpa gioa j z z h) Nghdwitfis clnfhs Sk NghJ ,awifahf mikejpUffpdw moy Fwwkhd J rj thpajjhy J}z lgglL njhz ilapy Njqfpepdw ,yRz qfs jbgGk› jshrrpAk c z lhfpwJ.

- ,it ,uz Lk NtWgL tjd fhuz jjpdhy› ,awif topepdw tspfFwwk J i z f fhuz khfp NtwWepiy t shrrpaileJ ,yRz j i j f jhgpjggLjJfpdwd.

rj thpaKila c z TgnghUlfs Fsphej eh› rUFfs Cwpa gioa

eh mUeJjy

⇩

fg] jhd jjpy (njhz il)

⇩

rj thpak ⇧

⇩

gpjjk j d d s tpy mjpfggLk

⇩

,yRz k jbgG› j shrrp c z lhFk

⇩

thj Fwwk NtwWepiy t shrrpailfpwJ

⇩

t f f k› , y R z k r⁄t j j y› t y⁄ , U f F k

⇩

, y R z k j h g⁄ j k i l f⁄ w J

Neha f z⁄gG:-

r⁄ j j kU j J t Neha f z⁄gG:-

- g⁄ z⁄aw⁄ K i w i k
- c a⁄h j h J f f s
- c l y j h J f f s
- g U t q f s
- l t i f e⁄y q f s
- c l y t d i k
- v z t i f j N j h T f s
- eh F w⁄
- nea F w⁄
- eh b

NkwFw⁄a fhu z⁄f s⁄d khWghL f i s x d W l d x d W xgg⁄l L f f z⁄f f g g L f⁄w J.

g⁄ z⁄aw⁄ K i w i k:-

1. nghw⁄ahy mw⁄j y
2. Gy d hy mw⁄j y
3. t⁄d h j y

, y R z j h g⁄ j j j⁄y Nehahs⁄f F fh Z k Fw⁄F z q f s.

1. nghw⁄ahy mw⁄j y

- %f F - %f f i l gG/%f F ehgha j y
- eh - N f h i o E i u j j y
- f z - , ayG
- fh J - fh J t y⁄
- N j h y - , ayG

2. Gydhy mwpjy

- CW - ntggk
- Xir - ,ayG
- xspd - ,ayG
- Rit - ,dpgG Rit njhpjy
- ehwwk - %ffpy rspd rtT rpteJ ffhzy› %ffilgG.

3. tpdhjy:- (Nfllwpjy)

- kUjJtd jd nghwp› Gydhy Nehahspapd epiy gwwp czhejij Nehahspapl Nkh (m) mtd ngwNwhh Rwwjjhiuf nfhzNl mtdJ ngah› taJ› jpiz› FLkg tuyhW› czT goffto ffk› Keija Nehapd tuyhW› Nghdwtwiw mwpjy MFk.
- ,itadwp› msit %yKkgpzpia mwpa KbAk.

  msit-10 tifggLk.

  vdpDk›

  fhzly

  fUjy

  ciuvdDk ,k%dW msitapy 10 msitfSk mlqFk.

fhzly:-

Nehahspapd njhzil› csehfif ghhjjy.

fUjy:-

Nehahsp $Wk FwpFzqfshd czT› eh tpOqf rpukk› Ruk› jiytyp› ,Uky› fhJtypKjypad.

ciu:-

Nehia rhpahd Kiwapy fzpjJ ciujjy.

ca‰hjhJ f f s (K f Fwwk) :-

1. thjk

yR z jhg‰j j j‰y fh z ggLk thj j j‰d e‰i y:-

1. g‰uh z d	:	ghj‰gG (, Uky› Nfhi o n t s‰tuy)
2. mghd d	:	, ayG
3. t‰ahd d	:	ghj‰gG (c z T t‰OqFk NghJ njh z i la‰y ty‰)
4. c jhd d	:	ghj‰gG (Ngrnrhy‰ F dwy› , Uky)
5. rkhd d	:	ghj‰gG (kww thAf f i s f lLggL j J t j‰y r‰ukk)
6. ehf d	:	, ayG
7. $hk d	:	, ayG
8. f‰Ufud	:	ghj‰gG (, Uky› %f f‰y eh t bj y)
9. Nj t j j j‰d	:	ghj‰gG (Nrhkgi y c z lhfFj y)
10. j dQnrad	:	-

2. g‰j j k

, yR z jhg‰j j j‰y g‰j j j j‰d e‰i y:-

1. m dwg‰j j k	:	, ayG
2. , uQr fg‰j j k	:	, ayG
3. rhj fgg‰j j k	:	ghj‰gG (c z Z k NghJ njh z i la‰y ty› c ly NrhhT)
4. g‰uhr fg‰j j k	:	, ayG
5. MNyhr fg‰j j k	:	, ayG

3. fgk

, yR z jhg‰j j j‰y fgj j‰d e‰i y:-

1. m tykgfk	:	ghj‰gG(%rR t‰l r‰ukk)
2. f‰Nyj fk	:	, ayG
3. Nghj fk	:	, ayG
4. j wgfk	:	, ayG
5. rej‰fk	:	, ayG

c l y jhJ f f s:- (VO c lwf l L f s)

, yR z jhgpj j j py c lwf l L f spd epi y:-

1. rhuk	:	ghjpgG (c l y NrhhT)
2. nreeh	:	ghjpgG (fopik eff p ghhf f pd n t SgG fh z y)
3. C z	:	ghjpgG (njh z i lapy ty p , yR z k t f f k)
4. n fhOgG	:	, ayG
5. v dG	:	, ayG
6. % i s	:	, ayG
7. R f f pyk /RNuh z pj k	:	, ayG

gU t fhyq f s:-

ngUknghOJ - g d d puz L jpq f s , gngUknghO i j MW gU t fhyq f shfg gphpf f gg l L s s J. , ggU t fhyq f spd khww j i j g nghWj J Nehaf s Vwg l f $ Lk. v dNt› gU t fhyq f spd J i z ahy g z pi a mwpa t hk.

1. fhhfhyk	:	M t z p› Gu l l hrp (Aug $ Sep)
2. $ jphfhyk	:	I ggrp› fhhj jpi f (Oct $ Nov)
3. K d g d pf f hyk	:	khhfop› i j (Dec $ Jan)
4. gpd g d pf f hyk	:	khrp› gq F dp (Feb $ Mar)
5. , sNt dpy	:	rpj jpiu› i t fhrp (April $ May)
6. K J Nt dpy	:	M dp› M b (June $ July)

KfFwwqfSk› gUtffhyqfSk› Ritf Sk.

t. vz	gUtf fhyqfs	Fwwqfs	Fwwqfspd epiy	Rit
1.	fhhfhyk	thjk	NtwWepiy tshrrp	,dpgG› Gspg G› cgG
		gpjjk	jddpiy tshrrp	
2.	$jphfhyk	thjk	jddpiy tshrrp	,dpgG› ifgG› JthgG
		gpjjk	NtwWepiy tshrrp	
3.	Kdgdpffhyk	gpjjk	jddpir tshrrp	,dpgG› Gspg G› cgG
4.	gpdgdpffhyk	fgk	jddpir tshrrp	,dpgG› Gspg G› JthgG
5.	,sNtdpy fhyk	fgk	NtwWepiy tshrrp	ifgG› JthgG
6.	KJNtdpy fhyk	thjk	jddpiy tshrrp	,dpgG

,yRz jhgpjjjpy gUtfhyqfs:-

,yRz jhgpjjjpy gpjjNjhlk ghjpggileJ jddpiy tshrrp mileJ mjdgpddh› fgkhdJ jddpiy tshrrp mileJ› NtwWepiyapYk tshrrp mileJ ,yRz jhgpjjjpd FwpFzqfis czlhFffpdwJ.

vdNt› Kdgdpfhyk Kjy ,sNtdpy tiuAss fhyk ,yRz jhgpjk NjhdWtjwFhpa fhyqfshFk. (Dec to Apr).

Itifepyqfs:-

1. FwpQrp (kiyAk› kiy rhhej ,lKk)-rpNyjJk NehafSfF ,Uggplk
2. Kyiy(fhLk› fhL rhhej ,lKk)-thj NehafSfF ,Uggplk
3. kUjk(taYk tay rhhej ,lKk)-KfFwwqfSk rkggLk
4. neajy(flYk fly rhhej ,lKk)-thjNeha czlhFk
5. ghiy(kzYk› kzy rhhej ,lKk)-KjNjhlqfSfFk ,Uggplk.

c l y t d i k:-

, J %dW t i fggLk.

m i t.

1. , awi f t d i k
2. nrawi f t d i k
3. fhy t d i k

1. , awi f t d i k

, J F z qfs %dwpypUeJ , awi fahfNt c z lht jhFk.

2. nrawi f t d i k

, J , awi fahf c z lhd c l i y› KfF z qf S fF Vww thW chpa c z T› nrayfshYk› c l y jhJffs ghjpffgglh t z z k epiyepWjjf $ba kUeJfshYk Ngzpf nfhs tjhy c z lht jhFk.

3**. fhy t d i k**

, J gUtffhyqfshYk› tajhYk c z lht jhFk

v z t i f j NjhT:-

‘ehbgghprk ehepwk nkhoptopk

yk %j jpuk pi t kUj J tuhAjk”.

nghUs:-

1. ehb
2.]ghprk
3. eh
4. epwk
5. nkhop
6. tpop
7. kyk
8. %j jpuk

t. vz	vztifj NjhTfspd ,affepiy	,yRz jhkpjjjpy czlhFk khWgll epiy
1.	ehb:- ➢ tsp moy› lak› fygG› KfFwwk ehbfspd jd eil› Gweil› ,isjjy› fjpjjy› Fjpjjy› Jssy› mOejy› gLjjy› fyjjy› KdNehfF› gpdNehfF› gff NehfF› Rotyk Mfpa Fwpfis mwpayhk.	➢ gpjjfgk ➢ fggpjjk Nkwnfhzl ehb eilfs ,yRz jhgpj Nehapy fhZk.
2.	]ghprk:- (njhlLgghhjjy) ➢ #lhapUjjy nfhjpjjpUjjy› Fspshejpujjy› rpy ,lqfspy #lhfTk› KwWk rpyyplbUjjy› tpahjjpUjjy› kwjjpUjjy› gpRgpRjjy› Njhy ntbgG› kaph jbjjy› cjphjy› rpyphjjy› clyk RuRujjy› jbjjy gilfSz-lhjy› Njky ngwy› flbfs› nrhwp› rpuqF› Gz› Giu› GwWfs› tffk Kjypaitnjdgljy› Njfk ,isjjy (m) gUjjpUjjy Kjypa Fwpfzqfis Muhatjhk.	➢ ,yRzjhgpjjjpy Ruk fhZk ➢ fOjjpd mUfpy csse pzfNfhsqfspy tffk ,UfFk.
3.	eh:- ➢ thj› gpjj› la› epwk› gyepwk› khrwwpUjjy› khggbejpUjjy› tha eh ngUfy› twzbUjjy› fWjjpUjjy› tha Gz zhapUj-jy› gpsT› jbgG fhzy›	➢ ,yRzjhgpjjjpy eh ntSjJ fhZk› Nfhio ntzik epwjjpy ntspggLk› Ngrnrhyp jhoeJ fhzggLk.

	Xuqfspy gsskNghy gjpejpUj-jy> gwfspd epiyik> vapWfspd epiyik> Rit mwpjy> Ngrrpd epiyik> ehit ntspNa elbdhy xU Gwkhfr rhaejpUjjy> tha Nfhzyha ,Ujjy Mfpa FwpFzqfisf ftdpggjhFk.	
4.	epwk:- ➢ clyghpNrhjidapy thj> gpjj> la epwqfs> fygG epwk (fWjjy> kQrspjjy> rptjjy> eykhjy> ntspuy) Kfk rptjjy> ntspuy> tpopAk gyYk fWjjy Kjypa FwpfismwpjyhK.	➢ ,yRzjhgpjjjpy njhzil> ,yRzk rpteJf fhZk.
5.	nkhop:- (Xir) ➢ Nehahspl NgRk nghOJ cujj xyp> rk xyp> Fuwfkkpa NgrR> jhoejxyp> rphpjjy> gpjwwy> Fowy> rkgejkpyyhj NgrR> Nghrhj NghJ fgjNjhL %rRtply> fgjNjhL $ba NgrR> %rRj jhqfp jhqfp tpLtjhfpa Eiuauypd xyp Kjypa FwpFzqfismwpjyhK.	➢ ,yRzjhgpjjjpy Ngrnrhyp jhoeJ> Fuy fkkYld fhZk.
6.	tpop:- (fz) ➢ fz zpd epwk> fz fyqfy> ehtbjy> tqfy> fz ghhitapd epiyik> fz Neha-	➢ ,yRzjhgpjjjpy tpop rpteJ ,UfFk.

	fs njhz Z}wwhiwAk gwwp Muhajyhk.	
7.	kyk:- ➢ kyjjpd epwk› jdik› ehwwk› kyjJld ro› ,ujjk ,it fyeJ Nghjy› kyk Nghj-yhfpa Fzqfis Ak ftdpgg-jhFk.	➢ ,yRz jhgpjjjpy kyffIL ,UfFk.
8.	rpWeh:- ➢ epwk› kzk› fygG› Eiu› vQry› Kiw› epiw› rjJ (Rit) ,itfis MuhatjhFk.	➢ ,yRz jhgpjjjpy rpWeh kQrspjJk› rpWjJk ,wqFjy fhzggLk.

neafFwp

neafFwpapd rpwgG:-

‘IfFwp nfhLtl thdpo ykheNjhh

iffFwp njhpjj eqflTisj Jjpjj Nj

nkafFwp epwenjhzp tpopeh ,Ukyk

iffFwp KOtJ}tq fwwhh jkkpDk

nghafFwp nkafFwp GfY nkthfFk

neafFwp mjid ,eepzpyj Jiugghk”.

gffk-298

Nehaehly ghfk-1

v z n z a tplL ghhfFk ehpd tpjp:-

‘epwfFwpf Fiujj epUkhd ehpd

rpwff nt z n z a Nahh rpWJspeL tpLj

njdWwj jpUenjhypVfhjikjjjp

dpdwjpt iy Nghk newptpopawpTk

nrdwJ GfYQ nrajpia A z Nu.”

nghUs:-

eh epwfFwpahy Nehiaf f z L gpbjjw nghUlLr nrhyypapUffpdw tpjp nghUejpa rpWehpy xU rpwpa Jspvznzia eLtpy ifairtpdhy vznzaj Jspr pjwhky tplL ntaapyhdJ meehpy gLkgb jpweJ› fhwwhdJ mjpy tr pmej vznzaj Jsp Mlhjgb itjJ› mrrpWehpy tplgglbUffpdw vznzaj Jspahd J nryYfpdw topapy f z zwpitAk› capuwpitAk nrYjjp› mjJsp njhptpfFk Neha tpsffjijenjhpeJ nfhs thahf.

‘muntd ezbd/Nf thjk”

Mop Nghy gutpd m/Nj gpjjk”

KjnjhjJ epwfpd nkhoptnjd fgNk”.

nghUs:-

ghkG Nghy ezlhy thj eh

Nkhjpuk Nghy gutpdhy gpjj eh

KjJgNghy epwfFkhapd mJ fg eh vd mwpayhk.

,yRz jhgpjjjpy fgjjpwFhpa myyJ gpjjjjpwFhpa myyJ njhej Njhljjpwfhpa neafFwpNah myyJ ,ayghfNth ,UfFk.

g/jjfg ehb:-

‘g z ghd g/jjjj/y Nrj Jk ehb

gh/r/jjh yjj/Ru k/isgG <is”

(rjf ehb)

fgg/jjehb:-

‘, lkhd Nrj Jkjj/y g/jjehb

vOej Z f/y t/lKlNd tff K z lhk›

j/lkhd Fs/h fharry kQrs NehTj

Njfjj/ Yisrry/isgg/Uky thej/

t/lkhd neQrilgG Rthrk t/ffy

(rjf ehb)

kUjJtk:-

‘Nehaehb NehaKj dhb aJj z/fFk›

thaehb thaggr nray”.

vdgjwf/z qf› c z thj/nrayfshy c z lhk Neha/id mw/Ak nghUlL› Neha mw/jwfhd ehly to/a/idf $WJk; m/J c z T nrayfs/d k/Fj/ Fiwthy ts/ moy› lak ,k%dw/y xdNwYk› ,uzNlDk› %dNwDk k/FeJ myyJ FiweJ g/z/ffggLkhifahy› g/z/ffgglL Fwwk ahJ? mjwF Kjdikahfa/UejJ vJ? mjdij jz/ggjwF to/ vJ? vd ehLjNy kUjJtd/d ewnrayhk.

‘cwwh dsTk g/z/asTq fhyKq

fwwhd fUj/r nray”.

vdgjdhy› Neha/dd milej Fww NtWghLfs/d k/Fjy Fiwjy msitAk; mjdhy NehAwwhd ngww Neha/d msitAk (jUk

juhnjd) mwpejgpd› Nehapd fhy msit mwpeJ› rpejpjJ› jFej kUjJtk Ghpt J mtrpak.

kUjJt topKiw:-

1. jddpiy tshrrpailej Fwwqfis rkggLjj Ntz Lk.

2. tdik ,oej clwflLfis tdik milar nraa kUejspff Ntz Lk.

3. Nehafhd kUeJfis toqf Ntz Lk

gjjpak:-

‘gjjpajjpdhNy gyD z lhk kUeJ

gjjpaqfs Nghdhy gyd NghFk - gjjpajjpy

gjjpaNk ntwwpjUk g z bjhfF Mjypdhy

gjjpaNk cjjp nadW ghh”.

-(Njiuah)

kUeJ z Zk fhyqfspy Nehahspapd Nehapd jdik nghUjJ cz T kwWk nrayfspy MFk.

cz z Ntz bait:-

- KUqifgpQR
- fjjhpggpQR
- fz lqfjjph
- NgaGly
- ghffkgpQR
- fiu tiffspy J}Jtis› fhprhiy› kzpjjffhsp nghddhqfddp.
- <Usp

- mjjpffha

  ,itfis NrhjJf nfhssyhk.

jtphff Ntzbait:-

- vs
- nfhsS
- ifgG>GspgGRitAss czTg nghUlfs
- mfjjpfiu
- ghfwfha
- kd
- fUthL
- Nfhop(ntsis)
- ,dpgGgzlqfs
- Njqfha
- khqfha

nrayfs:-

- Fsphej ehpy jiy KOff $lhJ.
- Fsphej jiuapy mjpfk<LgLjy $lhJ.
- ntJntJgghd ehpy cgGg NghlL euhdJ njhz ilapy gLkgb nfhggspffNtzLk.

MODERN ASPECT

TONSILITIS

TONSILS AND ADENOIDS

ANANTOMY:-

1. Waldyer ring consists of lymphoid tissue that surrounds the opening of the oral and nasal cavities into the pharynx and includes the palatine tonsils the pharyngeal tonsils (or) adenoid lymphoid tissue surrounding the eustachian tube orifice in the lateral walls of the nasopharynx, the lingual tonsil at the base of the tongue, and scattered lymphoid tissue throughout the remainder of the pharynx but especially behind the posterior pharyngeal pillars and along the posterior pharyngeal wall.
2. Lympoid tissue located between the palatoglossal fold (anterior tossillar pillar) and the palatopharyngeal fold (posterior tonsillar pillar forms the palatine tonsil.

- ❖ This lymphoid tissue is seperated from the surrounding pharyngeal musculature by a thick fibrous capsule.
- ❖ The adenoid is a single aggregation of lymphoid tissue that occupies the space between the nasal septum and the posterior pharyngeal wall.
- ❖ A thin fibrous capsule seperates it from the underlying structures. The adenoid does not contain the complex crypts that are found in the palatine tonsils but rather more simple crypts. The lymphoid tissue at the base of the tongue forms the lingual tonsil that also contains simple tonsillar crypts.

NORMAL FUNCTION:-

- ❖ Approximately 65% of the lymphocytes that makeup the lymphoid tissue of waldeyer ring are B lymphocytes, the remainder being either T-lymphocytes .
- ❖ The immunologic role of the tonsils and adenoid is to induce secretory immunity and to regulate to production of the secretory imnunoglobulins.

- Situated at the opening of the pharynx to the external environment, the tonsils and adenoid are in a position to provide primary defense against foreign matter.
- Deep crevices within tonsillar tissue form tonsillar crysts that are lined with squamous epithelium but have a concentration of lymphocytes at their bases.
- Lymphoid tissue of waldeyer ring is most immunologically active between 4and 10years of age, but decrease after puberty.
- No major immunologic deficiency has been demonstrated after removal of either or both of the tonsils and adenoid.

-Nelson Book of Paediatics
Page No:1756

DEFINITION OF TONSILLITIS

- Tonsillitis is the inflammation of the tonsils and usually occurs secondary to viral (a) bacterial influenza and staphylococci.
- On examination, the tonsils are enlarged and inflamed. Presence of follicels over the tonsils indicates bacterial infection (usually streptococcal)
- In addition there may be tender jugulodigastric lymph nodes.

- Achar's Text book of Pediatrics
(Fourth edition)

EPEDIMIOLOGY:-

Incidence: Peak in winter and early spring

Demographics:-

Age:-

- Most common in children aged 6 to 12 years, however all ages are affected.
- Tonsilitis in children aged less than 3 years is rare and usually of viral etiology .

Gender:-

Affects male and female population equally.

Socioeconomic status:-

Further spread of infection may occur from crowded living, travelling or working conditions.

- Sore throat accounts for 2.1% of ambulatory visits in the Us. Acute tonsillitis is more common in children between the ages of 5 and 15 years.

The prevalence of bacterial tonsillitis specically group A beta hemolytic streptococci (GABHS) is 15% to 30% of children with score throat and 5% to 15% of adults with sorethorat.

- Acute tonsillitis is most commonly seen in winter and spring in temperate climates although it may occur at anytime of the year.

ETIOLOGY:-

- Tomsils are first line of defense against illness.
- They produce WBC to help your body fight infection.
- The tonsils combat bacteria and viruses that enter your body through your mouth.
- However, tonsils are also vulnerable to infection from these invaders.
- Tonsilltis can be caused by a virus, such as common cold or by a bacterial Infection, such as streptococcal infection..
- According to the American Academy of Family Physicians (AAFP) an estimated 15 to 30 percent of tonsilltis cases are due to bacteria.
- Most often is it strep bacteria viruses are the most common cause of tonsils, The Epstein barr virus can cause tonsillitis which can also cause infective mononucleosis(IMN).
- Children came into close contact with others of school and play, exposing them to a variety of virus and bacteria.
- This makes them particularly vulnerable to the germs that cause tonsiiltis

- A number of food substances can lead to tonsillitis in suscepitble individuals, eg: allergens such as artificial colour, flavours and preservatives, peanuts, cold foods, cold drinks, ice- cream and sour food.
- Episodes of tonsillitis can also be activated by environemental changes, though the exact mechanisam has not been understood yet.
- Changes in weather, extremely cold climate, damp weather and exposure to pollutants can trigger episodes of tonsillitis too.

PATHOLOGY:-

- **Acute Infection :-**
- Most episodes of acute pharyngo tonsillitis are casued by viruses.
- Group A beta- hemolytic streptococcus (GABHS) is the most common casue of bacterial infection in the pharyny.
- Additional bacterial organisms can include other Beta-hemolytic streptocoocal (speices group C) staphylococcocus aureus gram negative organisam Mycoplasam pneumoniea and rarely Neisseria gonorrhea and corynebacterium diptheriae.
- Oral candidiasis can occur in immunocompromised patients (or) children who have been treated chronically with antibitoics (or) inhaled steroids.
- **Chronic Infection:-**
- The tonsil and adenoid can be chronically infected by multiple microbes which may include a high incidence of Beta- lactamase producing organisams.
- Both aerobic species such as streptococci and haemophilus influenzae and anaerobic speices. Such as peptostreptococcus prevotella and Fuso bacterium predominate. The tonsillar crypts can accumulate desquamated epithelial cells,lymphocytes ,bacteria and other debris causing cryptic tonsillitis.
- With time, these cryptic plugs can calacity into tonsillar concretions (or) tonsillolith .

Airway obstruction :-

- Both the tonsils and adenoid are major cause of upper airway obstruction in children.
- Airway obstruction in children is typically in sleep disordered, breathing including obstructive sleep apnea, obstructive sleep hypopnea and upper airway reistance syndrome.
- **Tonsillar Neoplsam:-**
- Rapid englargement of on tonsil is highly suggestive of a tonsillar Malignancy, typicallay lymphoma in children.

Tonsillor Hpertrophy Grading scale:-

0: Tonsils fit within tonsillar fossa

1+: Tonsils, <25% of space between pillars

2+: Tonsils < 50 % of space between pillars

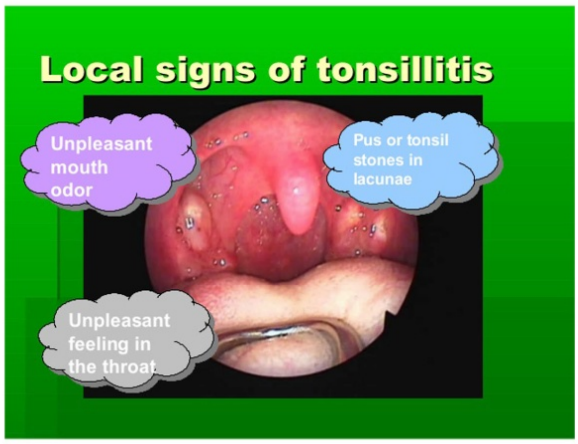
3+: Tonsils <75% of space between pillars

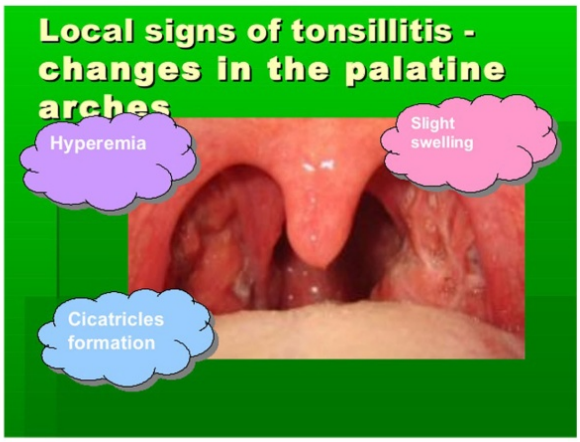
4+: Tonsils >75% of space between pillars

CLASSIFICATION OF TONSILLITIS:-

1. Acute Tonsilitis
   - Acute tonsillitis caused by streptococcus on hemolyticus, streptococcus, and streptococcus phogene can also be casued by a virus.
2. Follicular Tonsillitis
   - Tonsils swollen and hyperemic, covered its surface is covered with patches of white exudates debris filling the crypts.
   - This debris contained leukocytes, eptithelial cells due to inflammation and remnants of food
3. Lacunar Tonsilitis
   - Adjacent patches together and fill lacuna (curves) surface of the tonsils
   - Membranous Tonsilitis (Septic sore Thorat)
   - Tonsillar exudates covering the surface resembles. membrane
   - These membranes can be easily removed
4. chronic Tonsillitis
   - Recurrent Tonsilltis, predisposing factors:

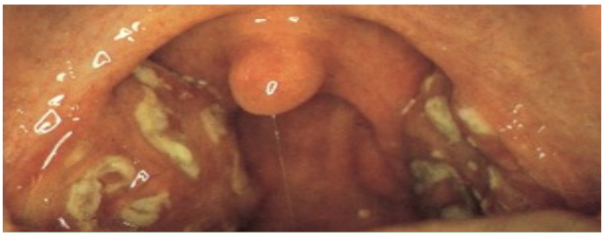
LOCAL SIGNS OF TONSILLITIS





TYPES OF ACUTE TONSILLITIS

Acute catarrhal



Acute follicular

Acute membranous

Acute parenchymatous

Chronic Tonsillitis

Boyle - Davis mouth gag

Rose's Position

ACUTE TONSILLITIS:-

Mostly affects children in the age group of 5-15 years, may also affect adults.

- **Organisms:** Beta _ hemolytic streptococci (most common) Staphylococci, pneumocci, H. Influnezae.
- **Symptoms:** sore throat difficulty in swalwoing fever, ear ache constitutional symptoms.

Types of Acute tonsililtis

1. Acute catarrhal / Superfical here tonsiilits is a part of generalized Pharyngitis mostly seen in viral infections.

2. Acute follicular - infection spread into the crypts with purulent material presenting at the opening of cypts as yellow spots.

3. Acute membranous - follows stage of acute follicular tonsillitis where exudates coalesce to form membrane on the surface.

4. Acute parenchymatous - tonsil is uniformly enlarged and congested

Symptoms

- Sore throat
- Difficulty in swallowing
- Generalised body ache
- Fever
- Earache and thick speech

Signs

- Swollen congested tonsils with exudates
- Enlarged tender jugulo - diagastric lymph nodes
- coated tongue
- Foetid breath
- Hyperaemia of pillars soft palate and uvula

Treatment:-

- Bed Rest
- Plenty of oral fluids
- Analageics
- Antimicrobial therapy - penicillin

- In case of penicillin sentitivity erththromcin are given
- Antibotics should be continued for 7-10 days.

Complications:-

- Chronic tonsillitis
- Peritonsillar obscess
- para pharyngeal abscess
- Cervical abscess
- acute otitis media
- Rheumatic fever
- Acute glomerulo nephritis
- sub acute bacterial endocarditis

Differentail Diagnosis of membrance over the Tonsil:-

- membranous tonsiltis
- Diptheria
- Vincents angina
- Infections mononucleosis
- Agranulocytosis
- Leukaemia
- Traumatic ulcer
- Aphthous ulcer
- Malignancy

CHRONIC TONSILLITIS:-

Aetiology:-

- Complication of acute tonsiillits
- Sub clinical infection of tonsil
- Chronic sinusitis (or) dental sepsis
- Mostly affects children and young adults.

Types of CHRONIC TONSILLITIS:-

1 Chronic Follicular tonsillitis

- Tonsillar crypts are full of cheesy material resulting in yellow spots on the surface.

2.Chronic parenchymatous tonsillitis

- Tonsils are very much enlarged almost touching each other and may interferce with speech degulution and respiration long standing cases may develop pulmonary hypertension

3. Chronic fibroid tonsillitis

- Tonsils are small but infected with history of repeated sore throat

Clinical features:-

- Recurrent attacks of sore throat
- Chronic irritation in throat with cough
- Halitosis
- Dyphagia
- Odynophagia
- Thick speech

Examination:-

- Tonsil may show varying degree of enlargement depending on the type
- Irwin - moore sign - tonsils are small but pressure on the anterior pillar expresses pus or cheesy material mainly seen in fibroid type
- There may be yellowish beads of pus on the medical surface of tonsils - chronic follicular tonsillitis
- flusing of the anterior pillar compared to rest of the pharyngeal mucosa
- Enlargement of the jugulo- digastirc node - soft non tender

Treatment:-

Conservative management

- Pay attenetion to the general health diet and treatment of co- existent infection of teeth nose and sinuses

Tonsillectomy:-

- When recurrent attacks interference with speech deglutination and respiration

Complications:-

- Peritonsillar abscess
- Para pharyngeal abscess

- Retro pharyngeal abscess
- Intra tonsillar abscess
- Tonsillar cyst
- Tonsillolith

SIGNS AND SYMPTOMS:-

Common signs and symptoms include

- sore throat
- Red, swollen tonsils
- pain when swallowing
- Fever
- coughing
- Headache
- Tiredness
- Chills
- Malaise
- White pus- filled spots on the tonsils
- Swollen lymph nodes (glands) in neck
- Pain in the ears (or) neck
- weight loss
- Difficulty ingesting and swallowing meal/liquid intake
- Difficulty sleeping

Less common symptom include

- Nausea
- Fatigue
- Stomach ache
- vomiting
- furry tongue
- haltiosis
- voice changes

- Loss of appetite
- Anxiety
- Tonsiltoliths occur in upto 10% of the population frequently due to episodes of tonsillitis.

Tonsilloliths:-

Tonsilloliths, also known as tonsil stones, are clusters of calcified material that form in the crevices of the tonsils (tonsillar crypts). While they occur most commonly in the palatine tonsils, they may also occur in the lingual tonsils. Tonsilloliths have been recorded weighing from 0.3g to 42g. They are composed mostly of calcium, but may contain other minerals such as phosphorus and magnesium, as well as ammonia and carbonate.

Protruding tonsillolithis may fel like foreign objects lodged in the tonsil crypt. They may be a nuisance and difficult to remove, but are usually not harmful. They are one of the causes of halitosis (bad breath).

While true tonsillar stones are rate, small areas of calcification or concretions are relatively common.

Complications

Local Complications

- Tonsillitis often resolves within three or Four days, with fever and other symptoms usually subsiding within a week. In some individuals however, the symptoms do not improve or may even worsen after this time. Some of the complications of Tonsillitis include

    1. Recurrent Tonsillitis
    2. Peritonsillar abscess (Quinsy)
    3. Spread of Infection
    4. Crypt Formation
    5. Breathing Difficulty
    6. Streptococcus
    7. Tonsillar cyst

1.Recurrent Tonsillitis

- In some individuals, tonsillitis occurs repeatedly every time they develop an upper respiratory tract infection. This is called recurrent tonsillitis or chronic tonsillitis and can severly affect a person's daily activities. Recurrent illness can also affect growth and development.
- Chronic or recurrent tonsillitis in usually diagnosed when a person has experienced one of the following.
- At least seven episodes of tonsillitis in preceding year.
- At least five episodes in each of the preceding two years.
- At least three episodes in each of the preceding three years.

2. Peritonsillar abscess:-

- Some people may develop an abscess several days after onset of tonsillitis symptoms. Also called Quinsy, the abscess presents as a pus – filled sac that forms between the wall of the throat and the back of one of the tonsils.

3.Spread of Infection:-

- The infection may also spread to areas around the tonsils, resulting in inflammation and infection of the surrounding structures. For example, bacteria present in the abscess may penetrate the nearby jugular vein, infecting the blood and giving rise to septicaemia.
- This condition is called "Lemierre's syndrome" and can be fatal if nost treated quickly and appropriately. Infection from the tonsils may also spread to the middle ear resulting in otitis media or middle ear infection.

4.Crypt Formation:-

- The bacteria can also accumulate in the pits on the surface of the tonsils resulting in the formation of crypts, which produce yellow (or) white, Foul smelling stones called tonsilloliths.

5. Breathing Difficulty:-

- Recurrent tonsillitis causes the tonsils to enlarge leading to snoring, disturbed sleep and mouth breathing. This is called obstructive apnea.

6.Streptococcus:-

- Streptococcal infection of the tonsils may lead to complications such as rheumatic fever (affecting the heart valves and the joints) and glomerulonephritis (Kidney infection).

7. Tonsillar cyst:-

- It is due to blockage of a tonsillar crypt and appears as a yellowish swelling over the tonsil. Very often it is symptomless. It can be easily drained.

Systemic complications:

1. Glomerulonephritis
2. Rheumatic Fever
3. Lemierre's syndrome
4. Septicemia

1. Glomerulomephritis (Very rare) is inflammation of the filters in your kidneys, caused by streptococcal bacteria.

2. Rheumatic Fever

It is a rare condition that causes widespread inflammation through out the body.

3. Lemierre's syndrome

It is a rare condition in which bacteria spread form your throat to major veins in your neck. Small 'clumps' of bacteria then travel through your blood stream to your lungs, joints and bones. Lemierre's syndrome can be easily treated with antibiotics but can be Fatal if it is not diagnosed quickly.

4. Septicaemia

It can occur if bacteria get into your bloodstream and multiply. The bacteria can be destroyed using antibiotics.

EXAMS AND TESTS

Diagnosis of tonsillitis is based on a medical history and a physical exam of the throat. An accurate medical history is needed to find out whether tonsillitis is recurrent, which may affect treatment choices.

If your symphoms suggest strep throat, we may want to confirm this diagnosis by doing a throat culture. strep throat is more likely if 3 or 4 of the following signs or symptoms are present.

- Fever
- White or yellow spots or coating on the throat and / or tonsils.
- Swollen or tender lymph nodes on the neck.

If a strep infection is suspected, we may do a rapid strep test or a throat culture or both. Both of these tests can be done.

Position

- Rose's position, i.e, patient lies supine with head extended by placing a pillow under the shoulder and a rubber pad under the head. In this position both the Tonsils are clearly viewed.

Advantage of Rose's position.

1. There is virtually no aspiration of blood or secretions into the airway.
2. Both hands of the surgeon are free. This position helps in proper application of the Boyles Davis mouth gag.
3. The surgeon can be comfortably seated at the head end of the patient.

Treatment:-

- Tonsillectomy is common procedure. Today, most cases of viral tonsillitis are managed by watching and wating (while treating the pain and fever).
- Tonsillitis will be treated with antibiotics if bacteria appear to be the cause. The longer that tonsillitis last, the more likely that it will require stronger treatment. In some circumstances, steroids are used to reduce tonsil swelling.

  The American Academy of paediatrics recommends removing the tonsils under some conditions.
- Tonsil or adenoid swelling that makes normal breathing difficult (this may or may not include sleep apnea).
- Tonsils that are so swollen that your child has problems swallowing.
- An enlarged adenoid that makes breathing uncomfortable, severly alters speech, and possibly affects normal growth of the face. In this case, surgery to remove only the adenoid may be recommended.
- Your child has repeated ear or sinus infections despite treatment. In this case, surgery to remove only the adenoid may be recommended.
- Your child has an excessive number of sere sore throats each year.
- Your child's lymph nodes beneath the lower jaw are swollen or tender for at least six months, even with antibiotic treatment.

Tonsillectomy:

- Tonsillectomy is a surgical procedure in which each tonsil is removed from a recess in the side of the pharynx called the tonsillar Fossa.
- The procedure is performed in response to repeated occurrence of acute tonsillitis, sleep surgery for obstructive sleep apnea, nasal airway obstruction, diphtheria carrier state, snoring or peritonsillar abscess.
- For children, the adenoids (also known as a pharyngeal tonsil or nasopharyngeal tonsil) are usually removed, a procedure called adenoidectomy. (or tonsilloadenoidectomy or adenotonsillectomy when combined).

- Adenoidectomy is uncommon in adults in whom the adenoids are usually vestigial. Although tonsillectomy is performed less frequently than in the 1950, it remains one of the most common surgical procedures in children in the United states.

Indications for Removing Tonsils.

1. Absolute
2. Relative

1) Absolute

- Recurrent Tonsillitis inspite of therapy
- Suspected malignancy
- Obstructive sleep apnea syndrome due to adenotonsillar hypertrophy.

2) Relative

- Recurrent acute tonsillitis:- the number of throat infections that might warrant a tonsillectomy to reduce subsequent episodes remains controversial. Guidelines from different organizations range from three to seven infections per year despite medical treatment. In general, the less severe the history of recurrent tonsillitis, the more marginally benefit is the surgery.
- Recurrent peritonsillar abscess.

Contraindications:-

1. Haemoglobin levels less than 10gms%
2. Presence of acute infection in upper respiratory tract, even acute tonsillitis. Bleeding is more in case of acute infection.
3. Children under three years of age. They are at poor surgical Risks.
4. Overt or submucous cleft palate.
5. Bleeding disorders like leukemia, purpura, aplastic anaemia, haemophilia.
6. At the time of epidemic of polio.

7. Uncontrolled systemic diseases eg. cardiac disease, asthma, hypertension.
8. Tonsillectomy is avoided in the period of menses.

RISKS FACTORS:

- Nasal sounding voice.
- Emotionally upset (Under 5 years of age)
- Post – operative Infection
- Bleeding

Morbidity and Mortality rates:

- Morbidity other than minor post – surgical infection is uncommon.
- Mortality is very rare.

PREVENTION:-

- Tonsillectomy can prevent tonsillitis, but is only recommended in select circumstances.
- Because most types of tonsillitis are spread by droplet transmission, droplet precautions can be effective means of prevention.
- Take enough liquids to keep the body hydrated.
- Eat nutritional diet includes fruits, vegetables soups.
- Should not exposed to passive smoking
- Should not eat unhygienic Food and drinking contaminated water.

MATERIALS AND METHODS

CLINICAL STUDIES:-

After finishing the studies 40 cases were selected from the OPD and IPD of Kuzhanthai Maruthuram Department, They were treated with the trail drug Lasunthabitha kudineer and observed for prognosis clinically.

STUDY DESIGN AND CONDUCT OF THE STUDY:-

Study Type	:	An observational clinical study
Study Place	:	Post graduate Kuzhanthai Maruthuvam OPD and IPD Government Sidhha medical college and hospital Palayamkottai
Study Peroid	:	24 months
Sample Size	:	40 Patients (20 Op + 20 IP)

- The sample consists all patients 3-12 years age group fulfilling all the inclusion and exclusion criteria.

STUDY PARTICIPANTS:-

INCLUSION CRITERIA:-

- Age 5 to 12 years
- Sex - Male and female children
- Throat pain
- Dysphagia
- Hoarseness of voice
- Enlarged tonsils
- Reffered pain the Ear
- Malaise
- Mild fever with tonsillitis

EXCLUSION CTITERIA

- Congenital anomalies of pharynx
- known case of pulmonary Tuberculosis.
- Physilogical hyperplasia of lymphoid Follicles
- Malignancy
- Tonsilitis which have indication for surgery

WITHDRAWAL CRITERIA

- The drug not responding to the condition.
- Intolerance to the drug and development of adverse reactions during drug trail.
- Patient turned unwilling to continue in the course of clinical trail.
- Occurrence of any serious illness

TERMINATION CRITERIA

- Not reporting subsequently
- Voluntary termination

TESTS AND ASSESMENTS

- Clinical assessment
- Siddha methodological assessment
- Laboratory Investigation* Imaging assessment

CLINICAL ASSESSMENT:-

- Throat pain
- Dysphagia
- Hoarsenoss of voice
- Enlarged tonsils
- Malaise
- Mild fever with tonsillitis

- Reffered pain in ear
- Oedema of uvula and congestion

SIDDHA TESTS AND ASSESSMENTS:-

I. UDAL KATTUKAL

Saram

senner

OOnn

Kozhuppu

Enbu

Moolai

Sukkilam/suronitham

II ENVAGAI THERVU

Naadi

Sparisam

Naa

Niram

Mozhi

vizhi

Malam

Moothiram

III NEERKURI

IV NEIKURI

INVESTIGATION:-

- Blood : TC, DC, ESR, HB, Total RBC Count, Absolute Eosinophil count
- Urine : Albumin, sugar, Deposits
- Motion : Ova, cyst

SPECIAL INVESTIGATIONS:-

- Thorat swab culture
- ASO TITRE (group A haemolytic streptococcus)

METHODOLOGY OF TREATMENT:-

Study Enrolment:-

Patient reporting at the OPD associated with clinical Features of

- Throat pain
- Diffiuclty in swallowing
- Difficulty in Speaking
- Mild fever with tonsillitis
- General tiredness
- Pain in the Ear

are choosen for enrollment based on the inclusion criteria

The patient's parents/ guardian who are informed (Form IV) about the study trial drug. post outcomes and the objectives of the study in the language and terms understandable to them and the informed conset would be obtained in writing form them in the consent form (From IV)

CONDUCT OF THE STUDY:-

The trail drug will be given in the OPD Department of Kuzhanthai Maruthvam GSMC Playamkottai. The patients will be asked to have a regular follow up in the Op department once in 2 days. In each and every visit the clinical assessment will be recorded in the prescribed proforma, The latoratory investigation will be done before and after treatment and recorded in the prescribed format.

DATA MANAGEMENT:-

After enrolling the patients in the study, a separate file for each patient will be maintained and all forms will be kept in the file. Whenever the patient visits OPD during the study period, necessary entires will be made at the assessment forms. data recordings and adverse events, of any,will be mointored by the Head of the Department and Pharmacovigilance committee.

OUTCOME:-

Primary Outcome:-

Primary outcome is mainly assessed by comparing the reduction in clinical symptoms are recurrence before and after treatment.

Secondary Outcome:-

Secondary outcome is assessed by comparing the safety Parameters before and after treatment

PROGNOSTIC CRITERIA

GRADE I : showed good improvement

GRADEII :Symptoms moderately reduced

GRADEIII : Symptoms slightly reduced

GRADE IV : No imporovement

ADVERSE EFFECT/ SERIOUS EFFCET MANAGEMENT:-

If the trail patient develops any adverse reaction he/she would be immediately withdrawn form the trail and proper managemet will be given in OPD of Govt. Sidhha medical college and hospital Palayamkottai.

ETHICAL ISSUES:-

1. To prevent any infection while collecting blood samples from the patient, only disposable syringes, disposable gloves with proper sterilization of laboratory equipments will be used.

2. There will be no infringement on the rights of patient. No other enternal or internal medicines will be used other than the trail drug in the treatment course of lasuthabitham there will be no infringement on the rights of the patient.

3. The data collected from the pateints's parents/guardian will be kept confidential

4. The patient's parents / guardian will be informed about the disease and other details of the treatment.

5. After obtaining the written consent of the patients's Parents guardian (through consent of the patient's parnts) guardian (through consent form in their vernacular language) they will be enrolled in the study.

6. Treatment would be provided free of cost.

7. In case of any adverse rections,the patients will be referred to the OPD of Kuzhanthai Maruthavam department of Govt, Siddha medical College hospital Palayamkottai for further management.

8. The patient will be allowed to withdraw form this trail if their parents/ guardian are not satisified with this treatment and procedures.

DRUG REVIEW

PREPARATION AND PROPERTIES OF TRIAL DRUG

, yR z jhgpj f FbeH (c lgpuNahfk)

, yR z jhgpj f FbeH:

‘..... KUq i f jNjhw

rpt dNtkGe j dpNtk gpdNwhw

rqfjpdNwhyhj z i lf flhajJs

ntqfhue jhffpfnfhsNs”.

NrUk rufFfs:

1. KUq i fggl i l (Moringa oleifera)
2. rpt dhHNtkGNtHgl i l (Indigofera aspalathoides)
3. rqfkNtHgl i l (Azima tetracantha)
4. Ntggkgl i l (Azadirchta indica)
5. Mnjh z i l (Capparis zeylanica)

nraKiw:-

rufFfis edwhf Rjjp nraJ› xdwpuzlhf ,bjJ› xU ghjjpujjpy 120kpyp jzzH Cwwp ,bjJ rufFfspy 10 fpuhk vLjJgNghlL› mjid fharrp 30kpyp tUk tiu twwitjJ› tbfflb nfhssTk.

msT:-

3 – 5 taJ – 10 kpyp
6 – 8 taJ – 20 kpyp
9 – 12 taJ – 30 kpyp

} ,UNtis czTfF Kd

mDghdk:

nghhpjj ntqfhuk - 50 - 100kpfp (Nkknghbahf J}tp frhajJld fyeJ jugglJ)

msTehs:- 8 (8fF Nkwgll ehlfs)

gjjpak:-

ifgG> GspgG effggl Ntz Lk.

E}y Mjhuk:

tpuz fugghd Nuhf rpfprir

(ruNgejpu itjjpa Kiwfs) gffk vz. 137>138

E}y MrphpaH:

kU.S. ntqflluh[d L.I.M mtHfs

சேரும் சரக்குகள்

முருங்கைப்பட்டை

சிவனார்வேம்பு வேர்பட்டை

சங்கம் வேர்பட்டை

வேப்பம் பட்டை

ஆதொண்டை

இலசுணதாபிதக் குடிநீர் சூரணம்

அனுபாணம்

வெங்காரம்

பொரித்த வெங்காரம்

PROPERTIES OF TRIAL MEDICINE

1. r/t dhHNtkG NtHgl i l:

Botanical Name : Indigofera aspalathoides

Family : Fabaceae.

R i t : i fgG

j d i k : n t ggk

g/h/T : fhHgG

n r a i f : n t ggK z lhf f/ – Stimulant

c s s oyhww/ – Demulcent

Chemical Constituents:-

,ej nrba/y

- ❖ Flavonoides
- ❖ Alkaloids
- ❖ Phenols
- ❖ Terpenoids
- ❖ Steroids
- ❖ Tannins
- ❖ Saponins
- ❖ Glycosides
- ❖ Proteins c s s J.

2. KUqifggl i l:

Botanical Name : Moringa oleifera

Family : Moringaceae

R i t : i fgG› J tHgG› , d/gG

j d i k : j lgk

g/h/T : fhHgG

n r a i f : Nfh i oa fww/ – Expectorant

, r/t fww/ – Antispasmodic

n t ggK z lhf f/ – Stimulant

- NtHgl i lahy laKk› Kgg z Ak
- gl i lahy t s fFwwKk› r y eQRf S k jUk.

Chemical Constituents:-

- Alkaloids → Moringine
  Moringinine
- Saponins
- Tannins
- Steroids
- Triterpenoids
- Tannins

3. Ntggkgl i l:

Botanical Name	:	Azadirachta indica
Family	:	Meliaceae
R i t	:	i fgG› r W J tHgG
j d i k	:	n t ggk
g h T	:	fhHgG
n r a i f	:	K i w n t gg fww – Antiperiodic
		cukhf f – Tonic
		J tHgg - Astringent

Chemical Constituents:-

- Azadirachtin .A
- Azaridine
- Terpenoids
- Alkaloids
- Glycosides
- Beta Sitosterol
- Nimbinene
- Nimbin

- ❖ Nimbiol
- ❖ Nimocin
- ❖ Nimbolide
- ❖ Quercetin
- ❖ n – hexacosanol
- ❖ Isomeldenin
- ❖ Azadiractol
- ❖ Azadirachnol

❖ la Ruk Kjy[a Ruqfs› Rujjh Y zlhFk cly jshrr[NghFk

4. rqfkNthglil

Botanical Name	:	Azima tetracantha		
Family	:	Salvadoraceae		
Rit	:	ifgG		
jdik	:	ntggk		
g[h[T	:	fhhgG		
nraif	:	Nfhiofww[	-	Expectorant
		cukhff[	-	Tonic
		ntggK zlhff[	-	Stimulant
		Kiwntggfww[	-	Antiperodic

Chemical Constituents

- ❖ Alkaloids
- ❖ Carpine
- ❖ Azimine
- ❖ Piperidine
- ❖ Friedelin

- ❖ Lupeol
- ❖ Beta sterol from the petroleum etler extract of the roots this plant.
- ❖ Recently Daultabad eta
- ❖ 7H Obtained novel fatty acids such as ricinobeicacid 9.8% sterculic acid 5.6% along with other fatty acids such as lauric 3.5% myistic acid (4.2%) palmitric acid (5.2%) stearic acid 1.6%
- ❖ Steroids
- ❖ Carbohydrates
- ❖ Reducing sugars
- ❖ Riterpinods
- ❖ Phenolic compounds
- ❖ Saponin
- ❖ Xantho proteins
- ❖ Tannins
- ❖ Flavonoids

5. M njh z i l

Botanical name	:	Capparis zeylanica		
Family	:	Capparaceae		
R i t	:	r W i f gG		
j d i k	:	n t ggk		
g h T	:	f hhgG		
n r a i f	:	j h J n t ggww	-	Sedative
		gr j j j j h z b	-	Stomachic

Chemical Constituents:-

- ❖ Flavanoids
- ❖ Fatty acids
- ❖ Lipids
- ❖ alkaloids
- ❖ Glucosinolates
- ❖ Vanillic acid
- ❖ Ferulic acid
- ❖ P-coumarric acid
- ❖ Phytosterols
- ❖ Alkaloids

- ➢ %ffilgG› njhzila‰wNrUk rs‰FilrryKjy‰aitjUk.
- ➢ M njhzilffhia twwyhff‰ czTld NrhjJ czz‰y la Neha $llqfs ahTkeqFk.

mDghdk

ntqfhuk:

Chemical Name :sodium biborate

Rjj‰:kz‰rlba‰y ehgjk NghFk tiu nghh‰jJ vLjjy

‘nrhw‰Gil naz Fdk ed ik nrh‰aurk

aw‰f‰uz‰ fyYhdk gdNdha njw‰iar

jlqf zqf kqf‰Ue‰ rht‰lQ rej‰

a‰lqf zq fyrr‰kNgh nkz”

nghUs :-

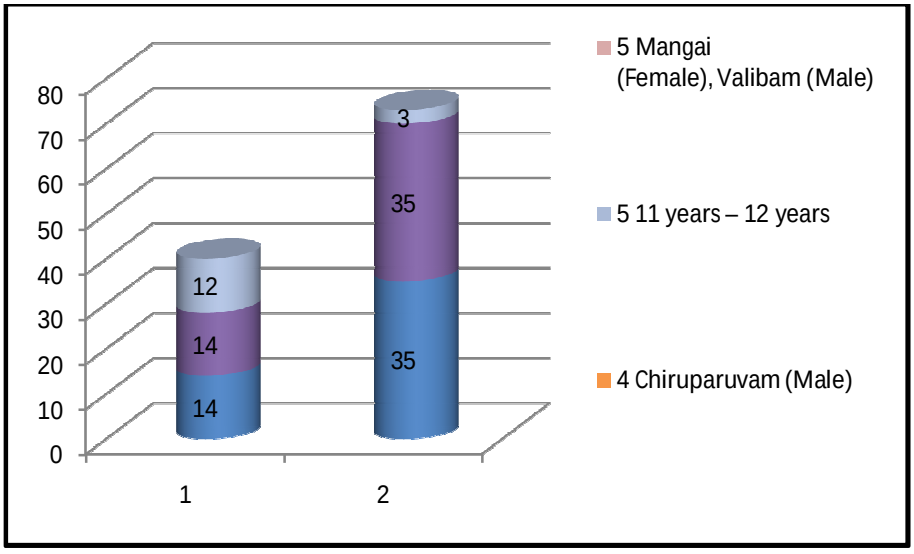
ntqfhujj‰dhy jtisr nrhw‰› gil› m\lFdkk› j‰dT› g‰jj%yk› xOfFf‰uhz‰ m]khh‰ gqFthjk› jejNeha› ehstoiia jLff‰dw %jj‰uff‰h‰rruqfs fghj‰ffk› ghkG GUt‰lk rej‰ghjk Mf‰ait jUk.

OBSERVATION AND RESULTS

1. AGE DISTRIBUTION. (Table No: 1)

S.No	Age	No. Of cases (out of 40)	Percentage (%)
1	0-1 year Kappu and Chenkeerai	-	-
2	2 year – 3 year Varugai, Thalattu, Sappani, Mutham	-	-
3	4 years – 6 years Ambuli, Chitril, Chiruparai, Chiruthervidhal, Paethai (female) & Pillai (male) paruvam	14	35
4	7 years – 10 years Paethamai (female) Chiruparuvam (Male)	14	35
5	11 years – 12 years Mangai (Female), Valibam (Male)	12	30

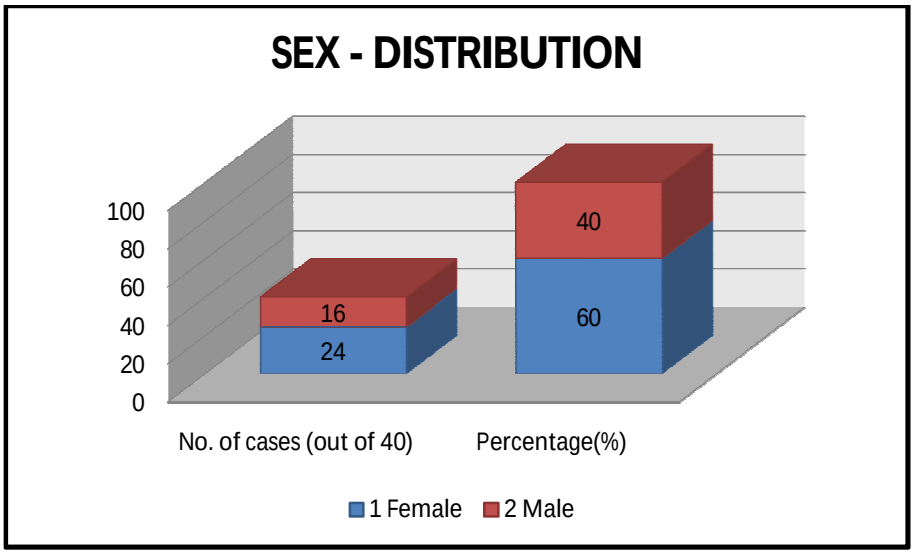
AGE DISTRIBUTION



Children under the age group of 7 yrs to 10 yrs were commonly affected. Among school going age group, overcrowding of children had high incidence of tonsillar infection.

2. SEX - DISTRIBUTION: (Table No: 2)

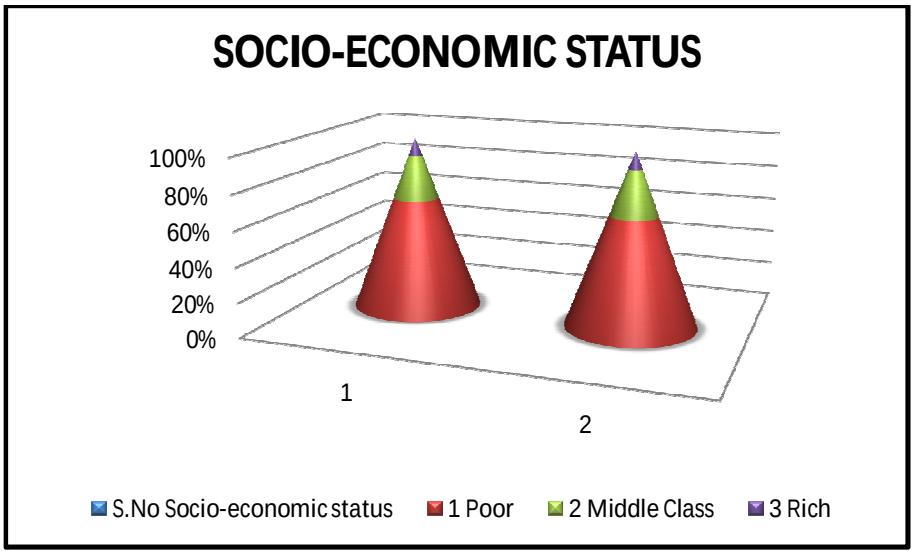
S.No	Sex	No. of cases (out of 40)	Percentage(%)
1	Female Children	24	60
2	Male Children	16	40



Among 40 cases studied 16 were male Children (40%) and 24 were female Children (60%). Though in the author's study to female child was highly affected than males, there is no apparent sex prediction.

3. SOCIO-ECONOMIC STATUS: (Table No: 3)

S.No	Socio-economic status	No. of cases (out of 40)	Percentage (%)
1	Poor	26	64
2	Middle Class	10	26
3	Rich	4	10

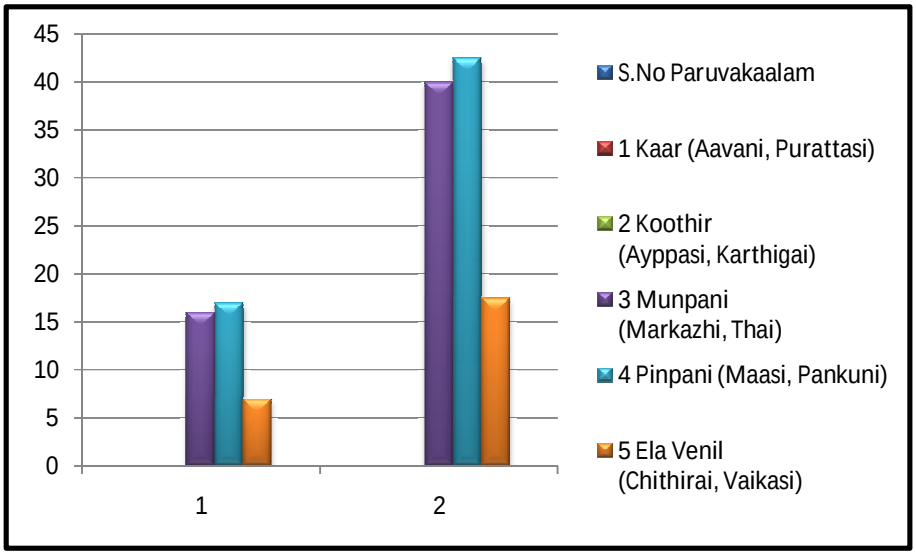


According to this study 26 cases of Poor socio economic status was noticed, this was due to lack of nutritious food and unhygienic condition and 10 belongs to Middle class, 4 belongs to Rich.

4. DISTRIBUTION OF PARUVA KALANGAL (Table No: 4)

S.No	Paruvakaalam	No. of cases (Out of 40)	Percentage (%)
1	**Kaar** (Aavani, Purattasi)	-	-
2	**Koothir** (Ayppasi, Karthigai)	-	-
3	**Munpani** (Markazhi, Thai)	16	40
4	**Pinpani** (Maasi, Pankuni)	17	42.5
5	**Ela Venil** (Chithirai, Vaikasi)	7	17.5
6	**Muthuvenil** (Aani, Aadi)	-	-

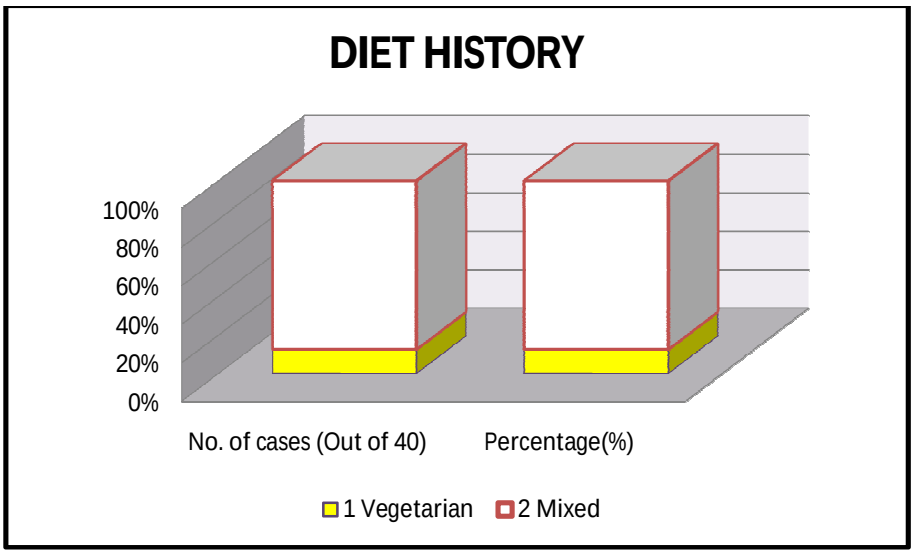
DISTRIBUTION OF PARUVA KALANGAL



Lasunathabitham was more common during winter i.e., Munpani, Pinpani, Elavenil kaalam. In Elavenil kaalam kabham gets vetrunilai valarchi,intake of sour taste and sugar taste induces kabha kuttram, action inducing the vitiation of kabha kutram produces symptoms of Lasunathabitham.

5. DIET HISTORY (Table No: 5)

S. No	Type of Diet	No. of cases (Out of 40)	Percentage(%)
1	Vegetarian	5	12.5
2	Mixed	35	87.5

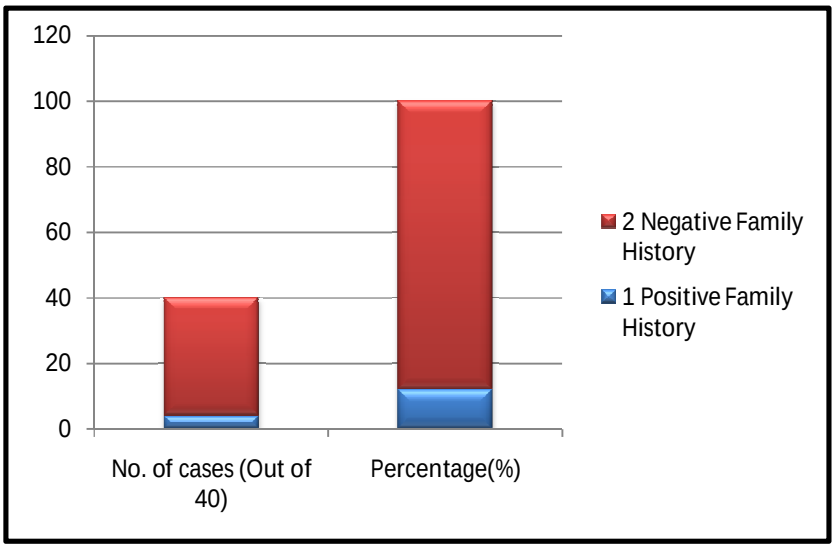


According to diet, high incidence of cases 87.5% was noted in mixed diet and in vegetarian 12.5% cases are noted.

6. FAMILY HISTORY (Table No:6)

S. No	FAMILY HISTORY	No. of cases (Out of 40)	Percentage(%)
1	Positive Family History	4	12
2	Negative Family History	36	88

FAMILY HISTORY

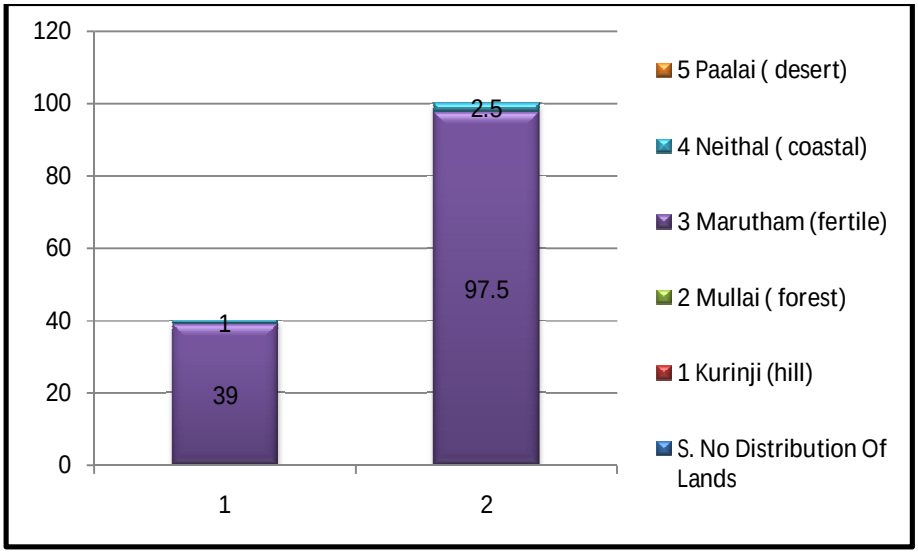


Out of 40 cases 36 (88%) cases have negative family history and 4 (12%) cases have positive family history.

7. DISTRIBUTION OF LANDS: (Table No: 7)

S. No	Distribution Of Lands	No. of cases (Out of 40)	Percentage(%)
1	Kurinji (hill)	-	-
2	Mullai (forest)	-	-
3	Marutham (fertile)	39	97.5
4	Neithal (coastal)	1	2.5
5	Paalai (desert)	-	-

DISTRIBUTION OF LANDS

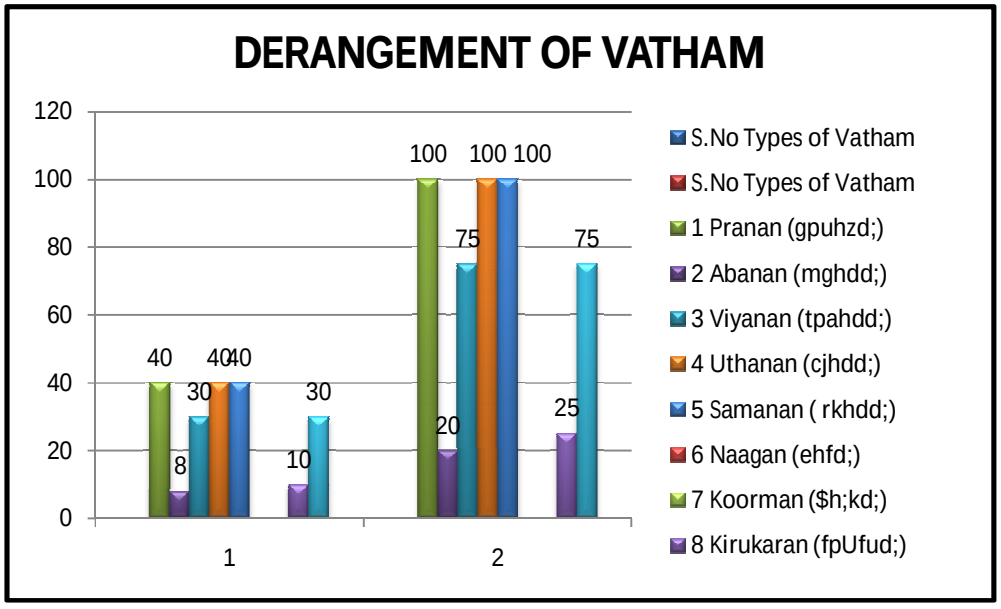


According to the Siddha concept, Marutha Nilam does not produce any disease among the people residing in the land. But due to altered life style and environmental conditions the incidence of lasunathabitham occurs in land of Marutham and Neithal.Tirunelveli belongs to Marutha nilam and the people in and around were affected by this disease. Therefore, there is no apparent thinai prediction for this disease.

8. MUKKUTRA THEORY: (Table No: 8)

1. DERANGEMENT OF VATHAM:-

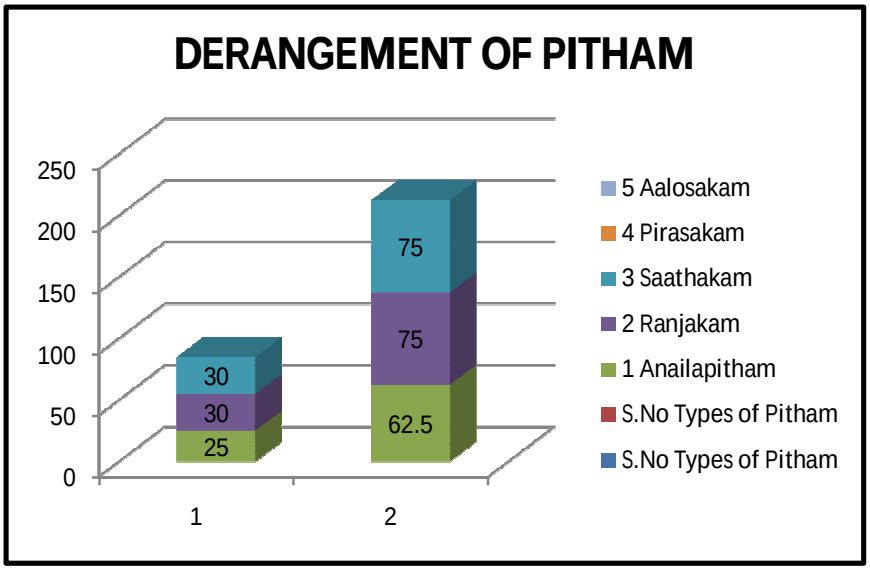
S.No	Types of Vatham	No. of cases (Out of 40)	Percentage(%)
1	**Pranan** (gpuh z d)	40	100
2	**Abanan** (mgh d d)	8	20
3	**Viyanan** (t pah d d)	30	75
4	**Uthanan** (c j h d d)	40	100
5	**Samanan** (r kh d d)	40	100
6	**Naagan** (eh f d)	-	-
7	**Koorman** ($ hk d)	-	-
8	**Kirukaran** (f pU f u d)	10	25
9	**Devathathan** (N j t j j j d)	30	75
10	**Dhananjeyan**(j d Q n r a d)	-	-



In vatham, all cases had derangement in Pranan, Uthanan, Samanan, In 75% of cases Viyanan, are affected. Kirukaran was affected.25% of cases, Devathathan was affected.75%, 20% Abanan affected.

2. DERANGEMENT OF PITHAM:

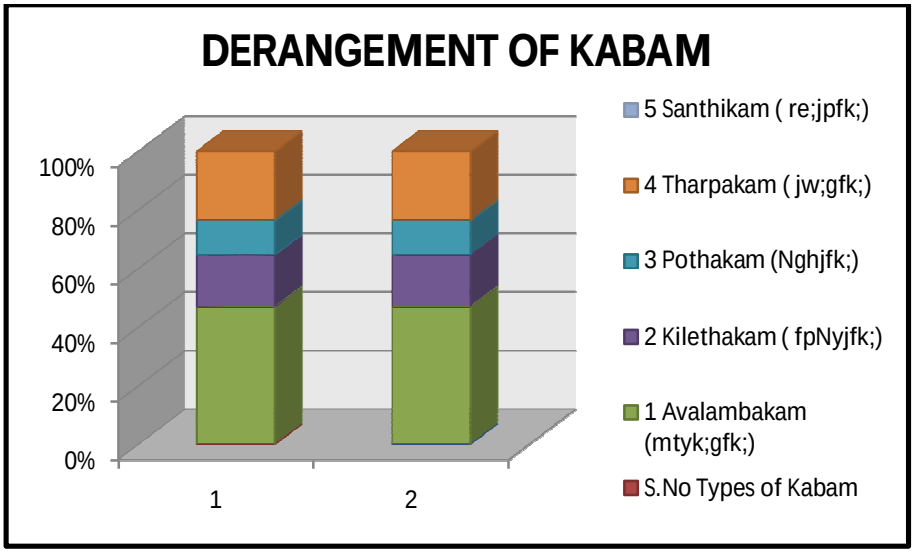
S.No	Types of Pitham	No. of cases (out of 40)	Percentage(%)
1	Anailapitham (m d ;yg ; j j k)	25	62.5
2	Ranjakam (, uQ r f k)	30	75
3	Saathakam (rh j f k)	30	75
4	Pirasakam (g ;uh r f k)	-	-
5	Aalosakam (MNyh r f k)	-	-



In Pitham, Sathagam and Ranjagam was affected in 75% of cases. In Avalampagam 62.5% of patients were affected.

3. DERANGEMENT OF KABAM:

S.No	Types of Kabam	No. of cases (out of 40)	Percentage (%)
1	Avalambakam (m t y kg f k)	40	100
2	Kilethakam (f‰Ny j f k)	15	37.5
3	Pothakam (Ngh j f k)	10	25
4	Tharpakam (j wg f k)	20	50
5	Santhikam (re j‰f k)	-	-

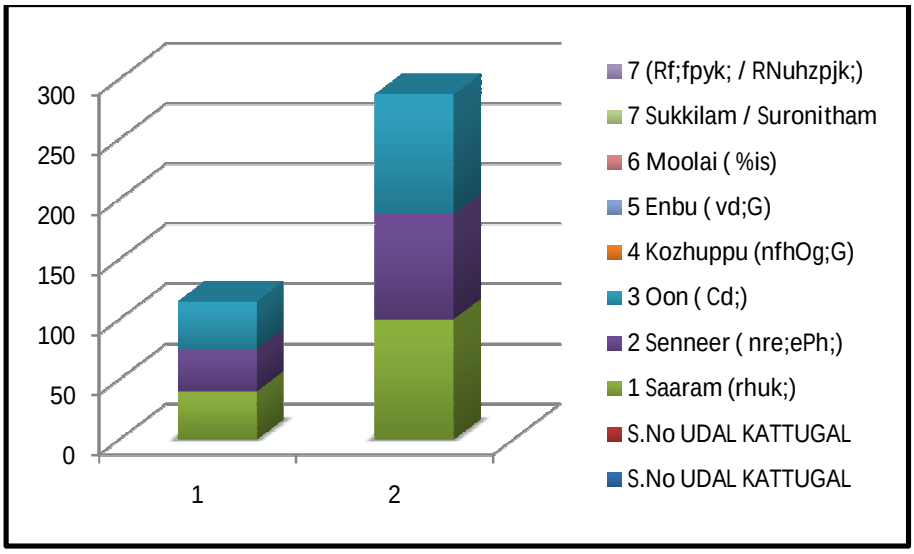


In kapham, Avalampagam was affected in all the patients.50% of patients were affected by Tharpagam, 37.5% of patients were affected kilethagam, In Bothagam 25% patients were affected.

9. UDAL KATTUGAL: (Table No: 9)

S.No	UDAL KATTUGAL	No. of cases (out of 40)	Percentage (%)
1	**Saaram** (rhuk)	40	100
2	**Senneer** (nreeh)	35	87.5
3	**Oon** (C d)	40	100
4	**Kozhuppu** (nfhOgG)	-	-
5	**Enbu** (v d G)	-	-
6	**Moolai** (% i s)	-	-
7	**Sukkilam / Suronitham** (Rf fpyk / RNuh z pjk)	-	-

UDAL KATTUGAL

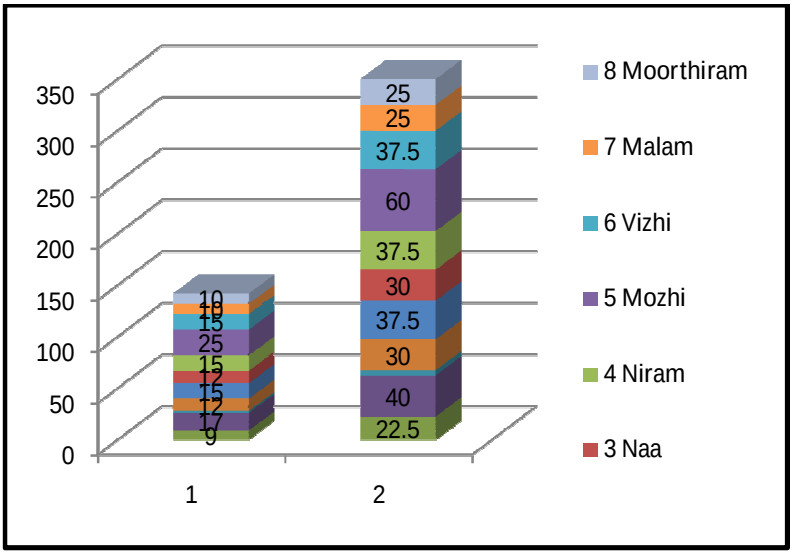


The first Thadu Saaram was affected in all the patients because of increased kabham.Involvement of Seneer caused increased ESR and Oon caused the enlargement of the gland.

10. ENN VAGAI THERVUGAL: (Table No: 10)

S.No	Enn Vagai Thervugal	No. of cases (out of 40)	Percentage (%)
1	Naadi (ehb)	-	-
A	Vatha Pitham	9	22.5
B	Pitha Kabam	17	40
C	Vatha Kabam	2	5
D	Kaba Pitham	12	30
2	Sparisam	15	37.5
3	Naa	12	30
4	Niram	15	37.5
5	Mozhi	25	60
6	Vizhi	15	37.5
7	Malam	10	25
8	Moorthiram	10	25

ENN VAGAI THERVUGAL

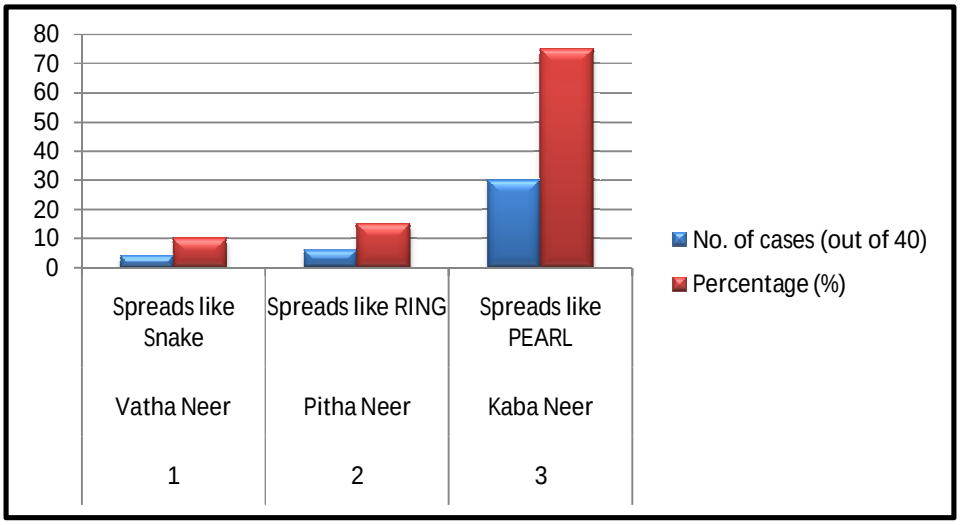


In ennvagai thervugal pale appearance and white coating of tongue, dull voice,redness of eyes, fever, and burning micturation were noticed respectively.

11. NEI KURI: (Table No: 11)

S.No	Neikuri Reference	Characters of Urine	No. of cases (out of 40)	Percentage (%)
1	Vatha Neer	Spreads like Snake	4	10
2	Pitha Neer	Spreads like RING	6	15
3	Kaba Neer	Spreads like PEARL	30	75

NEI KURI

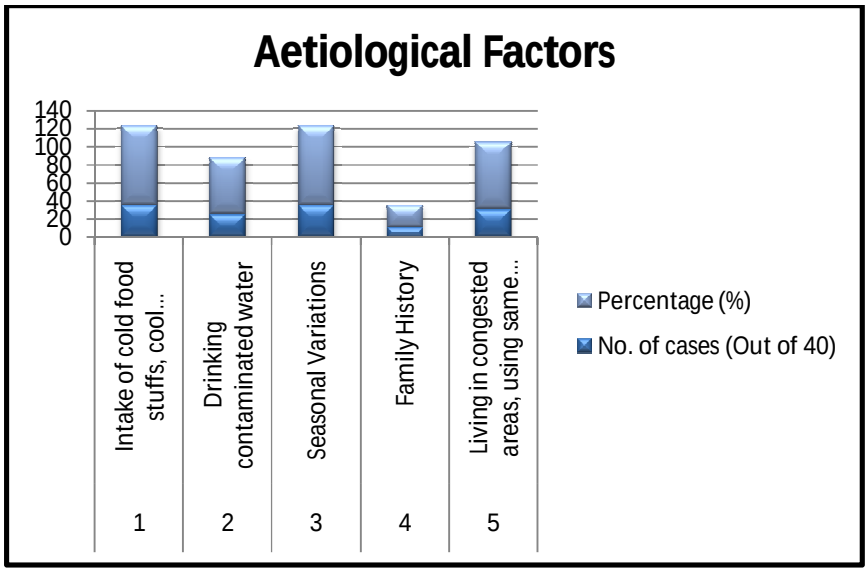


Among the 40 cases, 30 cases were observed Kabha neer , 6 cases Pitha neer and 4 case Vatha neer.

12. AETIOLOGICAL FACTORS OF LASUNATHABITHAM (Table No: 12)

S.No	Aetiological factors	No. of cases (Out of 40)	Percentage (%)
1	Intake of cold food stuffs, cool drinks, Ice creams etc.,	35	87.5
2	Drinking contaminated water	25	62.5
3	Seasonal Variations	35	87.5
4	Family History	10	25
5	Living in congested areas, using same vessels by many.	30	75

AETIOLOGICAL FACTORS OF LASUNATHABITHAM

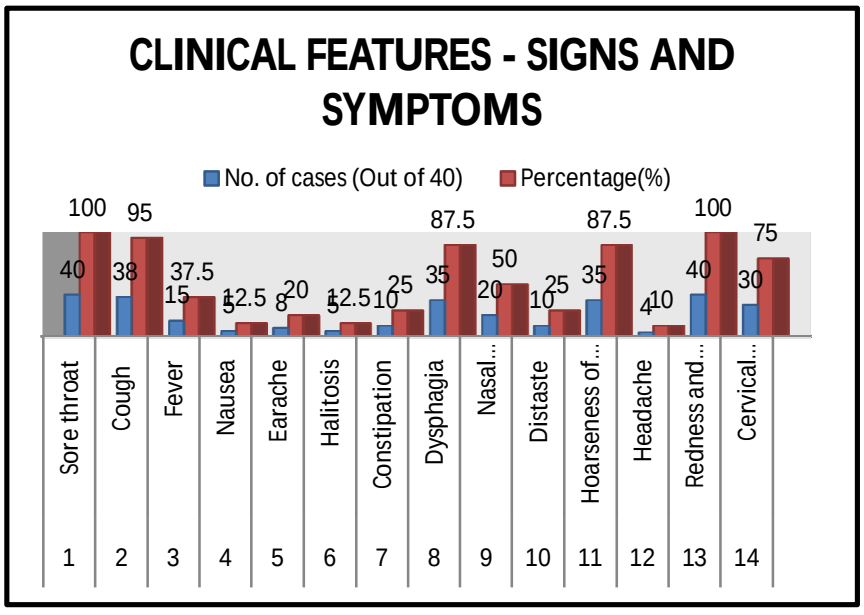


From the study, the author concludes that the main cause for the occurrence of Lasunathabitham was intake of cold food stuffs like ice creams and Drinking of contaminated water. Seasonal variations, Living in congested areas, Family history are other causes of Lasunathabitham.

13. CLINICAL FEATURES - SIGNS AND SYMPTOMS (Table No: 13)

The signs and symptoms of patients with Lasuna thabitham under the clinical study was given below

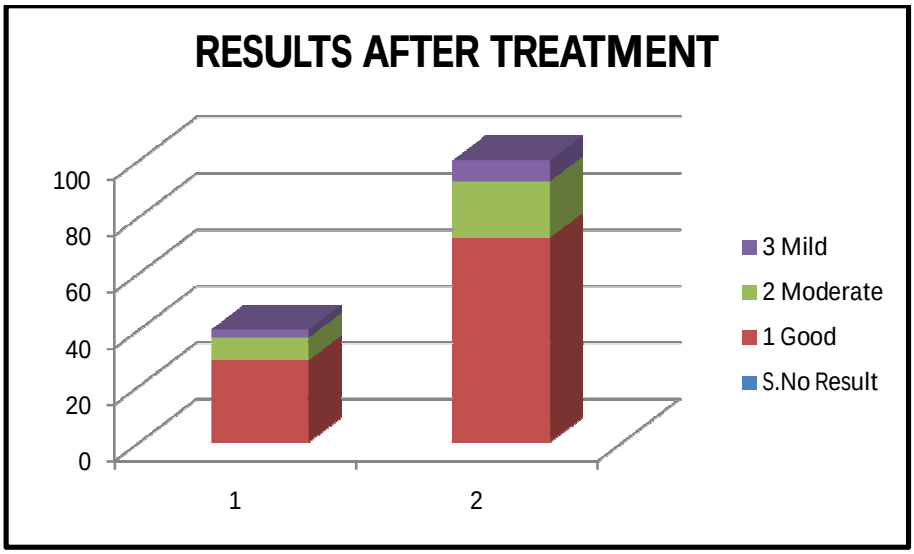
S.No	Clinical features	No. of cases (Out of 40)	Percentage (%)
1	Sore throat	40	100
2	Cough	38	95
3	Fever	15	37.5
4	Nausea	5	12.5
5	Earache	8	20
6	Halitosis	5	12.5
7	Constipation	10	25
8	Dysphagia	35	87.5
9	Nasal congestion & Nasal Discharge	20	50
10	Distaste	10	25
11	Hoarseness of voice	35	87.5
12	Headache	4	10
13	Redness and swelling of the tonsil	40	100
14	Cervical Lymphadenitis	30	75



Most of the patients had sore throat, cough, fever, dysphagia, anorexia, malaise, redness and swelling of the tonsil with cervical lymphadenitis were noted. Most of the symptoms and signs were relived after the treatment.

14.RESULTS AFTER TREATMENT (TOTAL) (Table No. 14)

S.No	Result	No. of cases (Out of 40)	Percentage (%)
1.	Good	29	72.5
2.	Moderate	8	20
3.	Mild	3	7.5



72.5 % (29 cases) showed good results, (8 cases)20% showed Moderate results and 7.5% (3 cases) showed mild response. These results based on the clinical improvement.

Sankar 8/Mc

Dharsan 5/Mc

INVESTIGATIONS OF 20 IN PATIENTS OF LASUNATHABITHAM

SL. NO.	IP NO.	Name of the Patient	HEMATOLOGICAL INVESTIGATIONS													
			Before Treatment							After Treatment						
			TCL Cumm	DC %			ESR mm		HB gms %	TCL Cumm	DC %			ESR mm		HB gms %
				P	L	E	½ hr	1 hr			P	L	E	½ hr	1 hr	
01.	152	Sandhiya	8400	53	40	7	2	5	12	8300	54	42	4	2	4	12
02.	293	Chrishma	8000	55	31	14	9	18	11.6	8000	59	33	8	6	12	11.8
03.	259	Maragatham	7900	60	34	6	3	6	10.2	7800	58	40	2	3	6	10.4
04.	751	Harini	8400	49	38	13	3	7	10.7	8400	54	39	7	2	4	10.9
05.	889	Abishika	9000	54	44	2	9	18	9.8	8900	56	41	3	7	14	9.8
06.	437	Keerthi	8600	53	43	4	4	8	10.2	8500	53	43	4	3	6	10
07.	488	Saravanan	8000	47	29	24	8	15	9.4	7900	49	36	15	5	10	9.5
08.	529	Muhammed	7800	51	45	4	5	10	11	7800	52	46	2	3	6	10.8
09.	536	Sathiya	8200	53	35	12	8	16	11.3	8100	56	37	7	4	8	11.2
10.	584	Visalini	7900	67	30	3	3	6	10.8	7900	64	32	4	3	6	10.8
11.	585	Senbagavalli	8500	61	34	5	2	4	12	8400	61	35	4	2	4	11.6
12.	599	Krishna	7300	56	38	6	8	16	10.4	7200	58	39	3	5	10	10.8
13.	642	Maharaja	7600	55	41	4	3	6	9.5	7600	56	42	2	2	4	9.5
14.	647	Kadhar Meer	8100	64	31	5	5	10	11.3	8000	64	33	3	4	8	11.5
15.	648	Jerina	9100	48	38	14	11	22	10	9000	54	38	8	7	14	10.2
16.	690	Dharshan	7500	67	25	8	2	4	12	7400	66	30	4	2	4	12
17.	704	Priya	8800	65	29	6	6	13	10.9	8700	64	32	4	4	8	11
18.	1059	Malliga	8400	59	39	2	3	6	9.1	8400	57	41	2	2	4	9.4
19.	1077	Sankar	8700	53	34	13	5	10	11.8	8600	55	38	7	3	6	11.6
20.	1079	Stella	7600	53	38	9	8	16	10.4	7600	56	41	3	6	12	10.6

INVESTIGATIONS OF 20 IN PATIENTS OF LASUNATHABITHAM

SL. NO.	IP NO.	Name of the Patient	URINE ANALYSIS						MOTION ANALYSIS			
			Before Treatment			After Treatment			Before Treatment		After Treatment	
			Alb	Sug	Dep	Alb	Sug	Dep	Ova	Cyst	Ova	Cyst
1.	152	Sandhiya	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
2.	293	Chrishma	Nil	Nil	1-2 Epilhelial cells	Nil	Nil	NAD	Nil	Nil	Nil	Nil
3.	259	Maragatham	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
4.	751	Harini	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
5.	889	Abishika	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
6.	437	Keerthi	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
7.	488	Saravanan	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
8.	529	Muhammed	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
9.	536	Sathiya	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
10.	584	Visalini	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
11.	585	Senbagavalli	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
12.	599	Krishna	Nil	Nil	1-2 pus cells	Nil	Nil	NAD	Nil	Nil	Nil	Nil
13.	642	Maharaja	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil

14.	647	Kadhar Meer	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
15.	648	Jerina	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
16.	690	Dharshan	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
17.	704	Priya	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
18.	11059	Malliga	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
19.	11077	Sankar	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
20.	11079	Stella	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil

Case Report of 20 In Patents of Lasunathabitham

S.No	IP. No	Name	Age/ Sex	Duration of Illness (Days)	Signs and Symptoms	Admission Date	Discharge Date	Results
1	152	Sandhiya	6FC	8	Cough, Fever Throat Pain, Redness and Swelling, Cervical adenitis, Nasalcongestion, Dysphagia, Constipation	23.01.16	30.1.16	Good
2	293	Chrishma	6FC	20	Cough, Fever Throat Pain, Redness and Swelling, Cervical adenitis, Nasaldischarge, Dysphagia, Nausea, Voice Changes	03.02.16	13.02.16	Moderate
3	259	Maragatha m	11FC	8	Cough, Fever Throat Pain, Redness and Swelling, Cervical adenitis, Nasaldischarge, Distaste Dysphagia, , Voice Changes	01.02.16	09.02.16	Good
4	751	Harini	5FC	10	Cough, Fever Throat Pain, Redness and Swelling, Cervical adenitis, Nasaldischarge, Distaste Dysphagia, , Voice Changes Constipation	19.03.16	26.03.16	Good
5	889	Abishika	5FC	15	Cough, Fever Throat Pain, Redness and Swelling, Cervical adenitis, Nasaldischarge, Distaste Dysphagia, , Voice Changes	01.04.16	08.04.16	Moderate
6	437	Keerthi	6FC	14	Cough, Fever Throat Pain, Redness and Swelling, Cervical adenitis, Distaste Dysphagia, , Voice Changes Constipation, Bad smell in mouth	18.02.16	22.02.16	Good

7	488	Saravanan	8MC	10	Cough, Throat Pain, Redness and Swelling, Cervical adenitis, Nasalcongestio, Distaste Dysphagia, , Voice Changes Constipation, Nausea	24.02.16	03.03.16	Good
8	529	Muhammed	10MC	14	Cough, Throat Pain, Redness and Swelling, Cervical adenitis, Nasalcongestio, Distaste Dysphagia, , Voice Changes Bad smell in mouth	27.02.16	04.03.16	Moderate
9	536	Sathiya	8FC	7	Cough, Fever, Throat Pain, Redness and Swelling, Cervical adenitis, Nasalcongestio, Distaste Dysphagia, , Voice Changes Distaste	28.02.16	05.03.16	Good
10	584	Visalini	12FC	7	Cough, Fever Throat Pain, Redness and Swelling, Cervical adenitis, Nasaldischarge, Dysphagia, Voice Changes, Constipation, Bad smell in mouth Ear Pain	03.03.16	09.03.16	Moderate
11	585	Senbagavalli	10FC	8	Cough, Fever Throat Pain, Redness and Swelling, Cervical adenitis, Nasaldischarge, Dysphagia, Voice Changes, Constipation, Bad smell in mouth Ear Pain Distaste	03.03.16	10.03.16	Good
12	599	Krishna	10MC	7	Cough, Fever Throat Pain, Redness and Swelling, Cervical adenitis, Nasaldischarge, Dysphagia, Voice Changes, Constipation, Bad smell in mouth Ear Pain Distaste Wheezing frequently	05.03.16	12.03.16	Mild
13	642	Maharaja	4 ½ MC	15	Cough, Fever Throat Pain, Redness and Swelling, Cervical adenitis,	09.03.16	15.03.16	Good

					Nasaldischarge, Dysphagia, Voice Changes, Constipation, Bad smell in mouth Ear Pain Distaste Wheezing frequently			
14	647	Kadhar Meer	11 FC	14	Cough, Throat Pain, Redness and Swelling, Cervical adenitis, Nasal, Congestion Dysphagia, Voice Changes, , Bad smell in mouth, Distaste	09.03.16	17.03.16	Good
15	648	Jerina	12 FC	14	Cough, Fever Throat Pain, Redness and Swelling, Cervical adenitis, Nasal Congestion, Dysphagia, Voice Changes, Constipation, Headache	09.03.16	16.03.16	Good
16	690	Dharshan	5 MC	25	Cough, Fever Throat Pain, Redness and Swelling, Cervical adenitis, Dysphagia, Voice Changes, Nausea, Vomiting, Ear Pain Distaste	14.03.16	22.03.16	Good
17	704	Priya	8 FC	14	Cough, Throat Pain, Redness and Swelling, Cervical adenitis, Nasal Congestion, Dysphagia, Voice Changes, Constipation,	15.03.16	28.03.16	Good
18	1059	Malliga	4 ¾ FC	30	Fever Throat Pain, Redness and Swelling, Cervical adenitis, Distaste Dysphagia, Voice Changes, Constipation,	20.04.16	28.04.16	Good
19	1077	Sankar	8 MC	10	Cough, Throat Pain, Redness and Swelling, Cervical adenitis, Dysphagia, Voice Changes, Badsmell in mouth	21.04.16	29.04.16	Good
20	1079	Stella	8 FC	7	Cough, Fever, Headache Throat Pain, Redness and Swelling, Cervical adenitis, Nasal Congestion, Dysphagia, Voice Changes, Constipation,	21.04.16	30.04.16	Good

THROAT SWAB CULTURE

				Before Treatment	After Treatment
SL. No	**IP.No**	**Name**	**Age/ Sex**	**Present Organisms in Culture**	**Present Organisms in Culture**
1	152	Sandhiya	6FC	Staphylococcus, Streptococcus, Pneumococcus	Nil
2	293	Chrishma	6FC	Staphylococcus, Streptococcus, Pneumococcus	Nil
3	259	Maragatham	11FC	Staphylococcus, Streptococcus, Pneumococcus	Nil
4	751	Harini	5FC	Staphylococcus, Streptococcus, Pneumococcus	Nil
5	889	Abishika	5FC	Staphylococcus, Streptococcus, Pneumococcus	Nil
6	437	Keerthi	6FC	Staphylococcus, Streptococcus, Pneumococcus	Nil
7	488	Saravanan	8MC	Staphylococcus, Streptococcus, Pneumococcus	Nil
8	529	Muhammed	10MC	Staphylococcus, Streptococcus, Pneumococcus	Nil
9	536	Sathiya	8FC	Staphylococcus, Streptococcus, Pneumococcus	Nil
10	584	Visalini	12FC	Staphylococcus, Streptococcus, Pneumococcus	Nil
11	585	Senbagavalli	10FC	Staphylococcus, Streptococcus, Pneumococcus	Nil
12	599	Krishna	10MC	Staphylococcus, Streptococcus, Pneumococcus	Nil
13	642	Maharaja	4 ½ MC	Staphylococcus, Streptococcus, Pneumococcus	Nil
14	647	Kadhar Meer	11 FC	Staphylococcus, Streptococcus, Pneumococcus	Nil
15	648	Jerina	12 FC	Staphylococcus, Streptococcus, Pneumococcus	Nil
16	690	Dharshan	5 MC	Staphylococcus, Streptococcus, Pneumococcus	Nil
17	704	Priya	8 FC	Staphylococcus, Streptococcus, Pneumococcus	Nil
18	1059	Malliga	4 ¾ FC	Staphylococcus, Streptococcus, Pneumococcus	Nil
19	1077	Sankar	8 MC	Staphylococcus, Streptococcus, Pneumococcus	Nil
20	1079	Stella	8 FC	Staphylococcus, Streptococcus, Pneumococcus	Nil

ABSOULTE EOSINOPHIL COUNT

S.NO.	IP NO.	NAME	AGE / SEX	AEC (BT)	AEC (AT)
1)	751	Harini	5 FC	1070 Cells / cumm	400 cells / cumm
2)	690	Dharshan	5 MC	600 cells	320 cells
3)	704	Priya	8 FC	510 cells	290 cells
4)	642	Maharaja	4 ½ MC	280 cells	260 cells
5)	647	Kadhar Meera	11 FC	390 cells	330 cells
6)	584	Vishalini	12 FC	250 cells	250 cells
7)	293	Chrisma	6 FC	980 cells	370 cells
8)	889	Abishika	5 FC	200 cells	210 cells
9)	599	Krishna	10 MC	8.00 cells	340 cells
10)	1079	Stella	8 FC	530 cells	310 cells

INVESTIGATIONS OF 20 OUT PATIENTS OF LASUNATHABITHAM

SL. NO.	OP NO.	Name of the Patient	HEMATOLOGICAL INVESTIGATIONS													
			Before Treatment							After Treatment						
			TCL Cumm	DC %			ESR mm		HB gms %	TCL Cumm	DC %			ESR mm		HB gms %
				P	L	E	½ hr	1 hr			P	L	E	½ hr	1 hr	
1.	109304	Divya	8100	51	45	4	3	6	11	8000	55	45	3	3	6	0.8
2.	109258	Muhatheswaran	8200	56	41	3	4	9	11	8200	56	41	3	2	4	11
3.	109281	Dinesha	8300	56	32	12	3	6	11.1	8200	61	33	6	2	5	10.9
4.	109182	Balamurugan	7000	66	30	4	5	10	10.7	7100	65	30	5	4	8	11.3
5.	109912	Yogasiva varshini	8800	65	28	7	13	25	10.4	8700	63	32	5	6	12	11
6.	111668/24	Safiya	8200	56	36	8	9	18	10	8200	57	37	6	5	10	10.7
7.	111761/342	Selvaharish	8400	53	38	9	14	27	10.8	8300	54	40	6	7	14	10.5
8.	2705	Harini	8200	50	39	11	12	24	10.4	8100	52	40	8	7	14	11
9.	2935	Dinesh Kumar	8400	57	33	10	2	4	11.2	8400	56	35	9	2	4	11.5
10.	6269	Murugan	7300	61	30	9	6	12	11	7400	59	34	7	4	8	10.6

11.	7136	Grishma	9300	56	36	8	12	25	11.9	9200	58	36	6	8	16	11.3
12.	6488	Muhammed Riyashkhan	8000	52	42	6	11	22	10.2	8000	56	41	3	7	14	10.5
13.	8359	Sudha	9800	50	48	2	6	12	12.1	9700	52	46	2	4	8	12.3
14.	8843	Muthayaa	8600	50	40	10	9	18	11.2	8500	51	42	7	5	10	11.6
15.	8878	Arumugakani	8500	51	45	4	4	7	10.2	8500	52	45	5	4	8	10.6
16.	10420	Samera	8100	57	37	6	10	20	9.8	8000	57	38	5	8	16	10
17.	18063	Meharaj	9800	78	20	2	7	15	8.5	9800	61	35	4	4	7	8.3
18.	30482	Muhammed Anifa	8100	56	31	13	4	9	11	8000	57	34	9	3	6	10.6
19.	34451	Arifa	8300	51	34	15	5	10	10.8	8200	56	34	10	4	8	10.8
20.	34757	Agirajahin	7800	56	44	2	3	7	11	7700	56	42	4	2	4	11.2

Case Report of 20 out patients with Lasunathabitham

S.NO.	OP NO.	PATIENT NAME	AGE / SEX	No. of days treated	Remarks
01.	109304	Divya	10 FC	8 DAYS	Moderate
02.	109258	Muhaswaran	11 MC	9 DAYS	Good
03.	109281	Dinesha	8 MC	9 DAYS	Good
04.	109182	Balamurugan	8 MC	8 DAYS	Moderate
05.	109912	Yogasivavarshini	12 FC	8 DAYS	Good
06.	111668/24	Safiya	7 FC	8 DAYS	Mild
07.	111761/342	Selvaharish	11 MC	10 DAYS	Good
08.	2705	Harini	12FC	9 DAYS	Good
09.	2935	Dinesh Kumar	9 MC	8 DAYS	Good
10.	6269	Murugan	8 MC	11 DAYS	Good
11.	7136	Grishma	6FC	9 DAYS	Moderate
12.	6488	Muhammed Riyas khan	5 MC	10 DAYS	Good
13.	8359	Sudha	11FC	8 DAYS	Good
14.	8843	Muthayaa	11 MC	10 DAYS	Good
15.	8878	Arumugakani	11FC	8 DAYS	Moderate
16.	10420	Samera	6FC	9 DAYS	Good
17.	18063	Meharaj	12FC	8 DAYS	Good
18.	30482	Muhammed Anifa	5 MC	9 DAYS	Mild
19.	34451	Arifha	5FC	10 DAYS	Good
20.	34757	Agirajahin	5 MC	12 DAYS	Good

From this study, Out of 20 Patients 14 Patients (70%) had good Relief, 4 patients (20%) had moderate relief, 2 patients (10%) had mild relief.

INVESTIGATIONS OF 20 OUT PATIENTS OF LASUNATHABITHAM

SL. NO.	OP. NO.	Name of the Patient	URINE ANALYSIS						MOTION ANALYSIS			
			Before Treatment			After Treatment			Before Treatment		After Treatment	
			Alb	Sug	Dep	Alb	Sug	Dep	Ova	Cyst	Ova	Cyst
1.	109304	Divya	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
2.	109258	Muhaswaran	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
3.	109281	Dinesha	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
4.	109182	Balamurugan	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
5.	109912	Yogasivavarshini	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
6.	111668/24	Safiya	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
7.	111761/342	Selvaharish	Nil	Nil	1-2 pus cells	Nil	Nil	NAD	Nil	Nil	Nil	Nil
8.	2705	Harini	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
9.	2935	Dinesh Kumar	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
10.	6269	Murugan	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil

11.	7136	Grishma	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
12.	6488	Muhammed Riyas khan	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
13.	8359	Sudha	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
14.	8843	Muthayaa	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
15.	8878	Arumugakani	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
16.	10420	Samera	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
17.	18063	Meharaj	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
18.	30482	Muhammed Anifa	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil
19.	34451	Arifha	Nil	Nil	1-2 pus cells	Nil	Nil	NAD	Nil	Nil	Nil	Nil
20.	34757	Agirajahin	Nil	Nil	NAD	Nil	Nil	NAD	Nil	Nil	Nil	Nil

DISCUSSION

Lasunathabitham is one of the Respiratory problem in paediatric age group, the clinical features of which are clearly described in various siddhar's text. This disease most probably correlates with Tonsillitis in modern science.

In the study of 40 cases were treated at the post graduate department. Siddha methods of diagnosis were carried out and recorded in the selection proforma, and the diagnosis was confirmed with the help of modern investigations. The patients were treated with the drug Lasunathabitha Kudineer and clearly observed. The results and observations are discurred here under.

1. Distribution according to age:

This study indicates the children's under the age group of 5 to 10 years were commonly affected, Since they contributed to school going age group, overpopulation of the children had high extent of tonsillar infection.

2. Distribution according to sex:

Among 40 cases of study 60% were female children and 40% were male children.

3. Distribution according to socio economic status:

Most of the patients 75% belonged to low income group, 20% of the cases were middle income group and 5% of the cases were high income group. Due to poverty, overpopulation and unhygienic practices this disease is more prevalent among the poor.

4. Distribution of paruva kaalangal:

According to paruva kaalangal the highest distribution (42.5%) was noticed in pinpani kaaalam, 40% patients are affected in Munpani kaalam, 17.5% of patients are affected in Elavenil kaalam.

5. Diet history:

According to diet history 87.5% of cases had mixed diet, and 12.5% had vegetarian diet. The highest incidence of cases were observed in mixed diet of food habits.

6. Family History:

According to family 88% of the cases had Negative family history, and 12% of the case had positive family history. The higher incidence of cases had no relvant history.

7. Distribution of Land:

Among the selected cases 97.5% of them were from Marutham land and 2.5% of them were Neithal land. According to the siddha concept marutham land does not produce any disease. But due to altered life style and environmental conditions the incidence of this disease occurs in land of Marutham and Neithal.

8. Distribution according to Uyir thathukkal:

a) Derangement of Vatham:

Due to derangement of vatham, the following symptoms may occur. Pranan (100%) causes difficulty in breathing. Abanan (20%) causes constipation in some patients. Viyanan (30%) causes Fatigue, Uthanan (100%) causes cough & in some patients wheezing. Samanan (100%) causes difficult in controlling other vathams, Kirukaran was deranged in (25%) cause loss of appetite, cough, running nose, Devathathan (75%) cause tiredness in some cases.

b) Derangements of Pitham:

Anilapitham was deranged in 62.5% of patients causing indigestion. Ranjakam was deranged in 75% of patients due to malnutrition and pallor, saathagam was deranged in 75% of patients causing limitations in their daily physical activities.

c) Derangements of Kabam:

Due to derangements of Kabam, Avalambagam was deranged in 100% of patients causing difficulty in breathing. Kilethakam was deranged in 37.5% of patients causing poor apetite pothakam was deranged in 25% of patients causing variation in taste, Tharpagam 50% of cases affected.

9. Distribution according to Ezhu Udal Kattugal:

In ezhu udal kattugal, saaram (100%) senner (87.5%), oon (100%) were affected causing General Fatigue, Anaemia, and swelling of the tonsils.

10. En Vagai Thervugal:

According to this study, 40% of cases had pithakabam naadi, 30% of cases had kabapitha naadi 22.5% of cases had vathapitha naadi, 5% of cases had vadhakaba Naadi, Sparisam was affected in 37.5% of cases (Fever), Naa was affected in 30% of cases (coated and pallor) Niram was altered in 3.5% of cases due to anaemia. Mozhi was affected in 60% of cases due to hoarseness of voice, vizhi was affected in 37.5% of patients due to pallor. Malam, Mothiram was altered in 25% of cases due to constipation and oliguria.

11. Nei Kuri:

In this study most of the patients had Kaba Neer (75%) which stood as a pearl indicating that the most predominant manifestation of the lasunathabitham is Kabam.

12. Distribution according to aetiological facters:

Intake of cold food stuff cooldrinks, Ice cream, etc., seasonal variations contribute to 87.5% of the most common cause, 75% of cases were affected by living in congested areas, using same vessels by many 62.5% of cases were affected by drinking contaminated water, 25% of cases were affected by familial way.

13. Distribution of clinical features:

Before treatment almost all cases (100%) were presented with sore throat and redness and swelling of the tonsil, it was reduced to 10%, 95% of cases had cough before treatment it reduced to 5%, 87.5% of cases had dysphagia and hoarseness of voice before treatment, it reduced to 5%, 75% of cases had cervical hymphadenitis, before treatment, it reduced to 7.5%, 50% of patients had Nasal congestion and Nasal discharge before treatment, it reduced to 2.5%, 37.5% of patients had fever before treatment it reduced to 0%, 25% of patients had distaste and constipation before treatment, it reduced to 1%, 12.5% of cases had Nausea, Halitosis before treatment, it reduced to 0%, 10% of cases had headache before treatment, it reduced to 0% Almost all the signs and symptoms were decreased after treatment.

14. Lab Investigations:

Routine Examination of blood and urine and motion were done before and after treatment. In most of the cases (75%) etevated ESR and eosinophil count was decreased after treatment.

15. Biochemical Analysis:

Qualitative analysis of the trial drug revealed the presence of ferrous iron which is more soluble and readily absorbable form that in treating children who are associated with anaemia. The study also indicates the presence of chloride, calcium, sulphate, starch, aminoacids etc.,

16. Antibacterial Activity:

Antibacterial activity of lasunathabitha kudineer showed that it inhibited the growth of bacterial strains of staphylococci and streptococci.

17. Pharmacological Analysis:

Pharmacological Analysis showed the drug has significant anti – inflammatory, anti – histamine activity.

18. RESULT:

Satisfactory improvement was reported in 3 days of commencement of treatment. Out of 40 cases 29 patients (72.5%) showed Good response with remarkable relief of symptoms, frequency of similar episodes is reduced. Moderate result was observed in 8 cases (20%) with decreased in sign and symptoms. In 3 cases the result was mild (7.5%), as there was less significant improvement of symptoms.

SUMMARY

- The aim of this dissertation subject is to assess the efficacy of trial drug "Lasunathabitha Kudineer" for "Lasunathabitham" without any adverse effects.
- Sufficient literatures with reference to Lasunathabitham was not found in siddha system. Hence from the available texts, signs, symptoms and characteristic features were collected and the medicine was chosen for the study.
- The Etiopathogenesis and symptoms of Lasunathbitham have been correlated with that of Tonsillitis with evidence of literature.
- Clinical diagnosis and selection of cases was based on clinical features described in Pillaipini Maruthuvam text book.
- Laboratory diagnosis was done by modern methods of examination.
- 20 cases were selected and treated in IPD. Department of Kuzhanthai Maruthuvam, Govt siddha medical college, Palayamkottai for the clinical study.
- The medicine choosen for treatment and management of Lasunathabitham was Lasunathabitha Kudineer (10 – 30ml) internally, twice a day.
- The trial drug selection is based on its siddha pathological and pharmacological action to rectify the deranged Mukuttram and also due to its antiinflammatory, antihistamine effect of ingredients.
- All the children were kept under strict dietary control during the treatment. The observation on effect of therapy was encouraging.
- The documentation of observation made during the clinical study showed that the drug is clinically effective.
- The Biochemical analysis of the trial drug had ferrous iron which adds to the clinical prognosis of Lasunathabitham by Lasunathabitha Kudineer.
- Anti bacterial activity of Lasunathabitha Kudineer showed that it inhibited the growth of bacterial strain against streptococci and staphylococci.

- In pharmacological analysis, the trial medicine Lasunathabitha kudineer had siginificant Anti – inflammatory, antihistamine action. Which help to improve the patients quality of life.

With there benefits **“Lasunathabitha Kudineer”** can be deemed as an effective drug for **“Lasunathabitham” (Tonsillitis).**

CONCLUSION

- The Global burden of Tonsillitis in children increasing prevalence and its impact in reducing the quality of life in children has prompted the author to choose an effective drug without any side effects, it is believed to improve the quality of life in children.
- The trial drugs are safe to the children.
- The treatment of Lasunathabitham with Lasunathabitha Kudineer has showed Good response with no adverse effect and ensure to be safe, effective and simple to administration.
- The trial drugs are in easy form of preparation.
- The ingredients of trial drug are feasible and useful, these compounds may serves as potentially useful drug at lower cost.
- Clinical results were found to be significant good improvement was found in 72.5% of cases, Moderate in 20% of cases and mild in 7.5% of cases.

Therefore it is concluded that the trial drug **"Lasunathabitha kudineer"** along with the modalities of Pranayama proves to be excellent in attack the tonsillitis among children.

The Tamil Nadu Dr.M.G.R. Medical University

#69, Anna salai, Guindy, Chennai-600 032.

This certificate is awarded to

Dr./~~Mr.~~/~~Ms.~~ M. SUGAVANESHWARI

for participating as ~~Resource Person~~ / Delegate in the Fifteenth Workshop on

"Research Methodology & Biostatistics"

for AYUSH Post Graduates & Researchers

Organised by the Department of Siddha

The Tamil Nadu Dr. M.G.R. Medical University from 23.06.2014 to 27.06.2014.

Dr. N. KABILAN M.D. (Siddha)	**Dr. JHANSI CHARLES,** M.D.	**Prof. Dr. D. SHANTHARAM,** M.D., D.Diab.,
Reader, Dept. of Siddha	Registrar	Vice-Chancellor

GOVT. SIDDHA MEDICAL COLLEGE

PALAYAMKOTTAI

SCREENING COMMITTEE

Candidate Reg. No: 32131400 8

Department: KUZHANTHAI MARUTHUVAM - BRANCH - IV

This is to certify that the dissertation topic An Observational clinical Study of "Lasunathabitham" with the efficacy of "Lasunathabitha Kudineer" has been approved by the screening committee.

Branch	Department	Name	Signature
1	Pothu Maruthuvam	Dr.S.Aathi Narayanan MD(S).,	
2	Gunapadam	Dr.M.Ravi Chandran MD(S).	
3	Sirappu Maruthuvam	Dr.S.Kaniraja MD(S).,	1.7.15
4	Kuzhanthai Maruthuvam	Dr.D.K.Soundararajan MD(S).,	1/7/15
5	Noi Nadal	Dr.S.K.Sasi MD(S).,	1/7/15
6	Naju Nool Maruthuvam	Dr.M.Thiruthani MD(S).,	1/7/15

Remarks:

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F.No.GSMC/ 5676/P&D/Res/IEC/2014 Date:16.07.2015

CERTIFICATE OF APPROVAL

Address of Ethical committee	Government Siddha Medical College , palayamkottai. -627002, Tirunelveli district.
Principal investigator	Dr.M.SUGAVANESHWARI.,MD(s)-II year, Department of Kuzhanthai maruthuvam, Reg.No:**321314008**
Guide	Dr.D.K.SOUNDARARAJAN,MD(S), Head of the Department, Dr.K.SHYAMALA,MD(S), Assistant Lecturer, Department of Kuzhanthai Maruthuvam, Govt. Siddha Medical College and Hospital, Palayamkottai. -627002.
Dissertation topic	An observational clinical study of LASUNATHABITHAM with the efficacy of LASUNATHABITHA KUDINEER
Documents filed	1)protocol, 2) Data Collection Forms, 3) Patient Information Sheet, 4) Consent form, 5)SAE(Pharmacovigilance)
Clinical / Non Clinical trial protocol	Clinical trial protocol – yes
Informed consent document	Yes
Any other document	Case sheet , Investigation documents
Date of IEC Approval & it's Number	GSMC-II-IEC/2015-Br-IV/08/16.07.2015

We approve the trial to be conducted in its presented form.

The Institutional Ethical committee expects to be informed about the process report to be submitted to the IEC at least annually of the study, any SAE occurring in the course of the study, any changes in the protocol and submission of final report.

Chairman 16/7/2015 Member Secretary

(Prof. Dr. M.Logamanian) (Prof.Dr.S.Soundararajan)

(For IAEC / CPCSEA usage)

Proposal number	: M.SUGAVANESHWARI/321314008 MD(S)/IAEC/KMCP/229/2015-16
Date first received	: 10.12.2015
Date received after modification (if any)	: NA
Date received after second modification (if any)	: NA
Approval date	: 18.12.2015
Expiry date	: 31.03.2016
Name of IAEC / CPCSEA chairperson	: N.CHIDAMBARANATHAN

Date: 18.12.2015

CPCSEA NOMINEE
INSTITUTIONAL ANIMAL ETHICS COMMITTEE
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MADURAI-625 107

Signature

I. A. E. C. CHAIRMAN
INSTITUTIONAL ANIMAL ETHICAL COMMITTEE
K. M. COLLEGE OF PHARMACY
MADURAI-625 107.

GOVERNMENT SIDDHA MEDICAL COLLEGE

PALAYAMKOTTAI

Certificate of Botanical Authenticity

Certified the following plant drugs used in Siddha formulation LASUNATHABITHA KUDINEER for the management of LASUNATHABITHAM (TONSILITIS) taken up for Post Graduation Dissertation Studies by Dr.M.Sugavaneshwari (Reg No.321314008) PG Dept. of Kuzhanthai Maruthuvam are correctly identified and authenticated through Visual Inspection / Organoleptic Characters / Experience, Education and Training Morphology and Taxonomical methods.

S.N	Name	Botanical Name	Family	Parts used
1.	Murungai pattai	*Moringa oleifera*	Moringaceae	Bark
2.	Sivanarvembu ver pattai	*Indigofera aspalathoides*	Fabaceae	Root Bark
3.	Sangam verpattai	*Azima tetracantha*	Salvadoraceae	Root Bark
4.	Vepam pattai	*Azadirachta indica*	Meliaceae	Bark
5.	Aathondai	*Capparis zeylanica*	Capparaceae	Whole plant

Station: Palayamkottai,

Date: 19/12/15

19/12/15

Authorized Signature

Dr. S. SUTHA, M.Sc.,M.Ed.,Ph.D.,
Associate Professor
Dept. of Medicinal Botany
Govt. Siddha Medical College
Palayamkottai, Tirunelveli - 2.

GOVERNMENT SIDDHA MEDICAL COLLEGE

PALAYAMKOTTAI

Certificate of Gunapadam Authenticity

Certified the following mineral drug used in Siddha formulation LASUNATHABITHA KUDINEER for the management of LASUNATHABITHAM (TONSILITIS) taken up for Post Graduation Dissertation Studies by Dr.M.Sugavaneshwari (Reg No.321314008) PG Dept. of Kuzhanthai Maruthuvam are correctly identified and authenticated through Visual Inspection / Organoleptic Characters / Experience, Education and Training Morphology Microscopical methods.

S.N	Name	Chemical Name
1.	Vengaram	*Sodium biborate*

Station: Palayamkottai,

Date: 18/11/16

Authorized Signature

துறைத்தலைவர்
பட்டமேற்படிப்பு - குணபாடத்துறை
அரசினர் சித்த மருத்துவக்கல்லூரி
பாளையங்கோட்டை.

ANNEXURE II

BIO -CHEMICAL ANALYSIS

BIO -CHEMICAL ANALYSIS OF LASUNATHABITHA KUDINEER PREPARATION OF THE EXTRACT

5gms of the drug was weighed accurately and placed in 250ml clean beaker Then 50ml of distilled water is added and dissolved well. Then it is boiled well for about 10 minutes. It is cooled and filtered in a 100ml volumetric flask and then it is makeup to 100ml with distilled water. This fluid is taken for analysis.

QUALITATIVE ANALYSIS

S.NO	EXPERIMENT	OBSERVATION	INFERENCE
1	**TEST FOR CALCIUM** 2ml of the above prepared extract is taken in a clean test tube. To this add 2ml of 4% Ammonium oxalate solution.	A white precipitate is formed	**Indicates the presence of calcium**
2	**TEST FOR SULPHATE:** 2ml of the extract is added to 5% barium chloride solution.	A white precipitate Is formed	**Indicates the presence of sulphate**
3	**TEST FOR CHLORIDE:** The extract is added with silver nitrate solution	A white precipitate Is formed	**Indicates the presence of chloride**
4	**TEST FOR CARBONATE:** The substance is treated with concentrated Hcl	No brisk Effervessence is formed	Absence of chloride
5	**TEST FOR STARCH:** The extract is added with weak iodine solution.	Blue colour is formed	**Indicates the presence of starch**

6	**TEST FOR IRON FERRIC:** The extract is acidified with Glacial acetic acid and potassium ferro cyanide.	No blue colour is formed	Abseence of ferric iron
7	**TEST FOR IRON FERROUS:** The extract is treated with concentrated Nitric acid and Ammonium thio cyanate solution.	Blood red colour is formed	**Indicates the presence of ferrous iron**
8	**TEST FOR PHOSPHATE:** The extract is treated with Ammonium Molybdate and concentrated nitric acid.	No yellow precipitate is formed	Absence of phosphate
9	**TEST FOR ALBUMIN:** The extract is treated with Esbach's Reagent.	No yellow precipitate is formed	Absence of Albumin
10	**TEST FOR TANNIC ACID:** The extract is treated with ferric chloride.	No colour change	Indicates the absence of Tannic acid
11	**TEST FOR UNSATURATION:** Potassium permanganate solution is added to the extract.	It gets decolourised	**Indicates the presence of unsaturated compound**
12	**TEST FOR THE REDUCING SUGAR** 5ml of Benedict's qualitative solution is taken in a test tube and allowed to boil for 2 mts and added 8-10 drops of the extract and again boil it for 2 mts.	No Colour Changes	Indicates the Absence of reducing sugar

13	**<u>TEST FOR AMINO ACID:</u>** One or two drops of the extract is placed on a filter paper and dried it well. After drying, 1% Ninnydrin is sprayed over the same and dried it well.	Violet colour is formed	**Indicates the presence of Amino acid**
14	**<u>TEST FOR ZINC:</u>** The extract is treated with potassium ferrocyanide.	No white precipitate is formed	Absence of Zinc

The trial drug **"LASUNATHABITHA KUDINEER"**

- **Calcium**
- **Suphate**
- **Choride**
- **Starch**
- **Ferrous iron**
- **Unsaturated compound**
- **Amino acid**

EVALUATION OF ANTI-INFLAMMATORY ACTIVITY OF *LASUNATHABITHA KUDINEER*

The anti-inflammatory activities of Siddha formulation of *Lasunathabitha kudineer* at a dose of 15 ml/kg and 30 ml/kg were evaluated using carrageenan-induced paw edema method. The inflammation was readily produced in the form of edema with the help of irritant such as carrageenan. Carrageenan is a sulphated polysaccharide obtained from sea weed (Rhodophyceae) and when injected cause the release of prostaglandins by the way it produces inflammation and edema.

REQUIREMENTS:

Animal : Albino rat (180-200 g)

Drugs and chemicals : Carrageenan (1%w/v), Diclofenac sodium (standard),

Carboxy methyl cellulose : (1%w/v),

Digital plethysmo meter. : U G O Basile (Italy)

Test compounds : *Lasunathabitha kudineer*

METHOD:

Anti-inflammatory activity was performed by the following procedure of Bhandri et al(1) The animals were divided into 4 groups each having six animals. A freshly prepared suspension of carrageenan (1% w/v 0.1 ml) was injected to the planter region of left hind paw of each rat. One group was kept as control and the animals of the other groups were pretreated with the *Lasunathabitha kudineer* at two doses 15ml/kg and 30 ml/kg dissolved with 2 ml sterile water given through orally twice a day for 4 days after carrageenan treatment. The paw volumes of the test compounds, standard and control groups were measured at 24 hr, 48hr and 72hr with the help of Digital plethysmometer (Ugo Basile, Italy). Mean increase in paw volume was measured and the percentage of inhibition was calculated.

% Anti-inflammatory activity = (Vc-Vt / Vc) x 100

Where, ***Vt***-mean increase in paw volume in rats treated with test compounds,

Vc-mean increase in paw volume in control group of rats.

TABLE No.1

ANTI-INFLAMMATORY ACTIVITY OF *LASUNATHABITHA KUDINEER*

Treatment	Dose (mg/kg)	Paw volume(ml) as measured by mercury displacement at 72 hour	Percentage inhibition of paw edema
Group I Normal saline	10ml/kg orally	5.50±0.90	-
Group II Standard	10mg/kg I.P. Diclofenac sodium	1.85±0.42	66.36%*a
Group III *Lasunathabitha kudineer*	15 ml/kg	2.18±0.50	60.36%*a
Group IV *Lasunathabitha kudineer*	30 ml/kg	1.95±0.40	64.54%*a

- Data are expressed as Mean ± S.E.M.
- Data were analyzed by one way ANOVA followed by Newman's keul's multiple range tests, to determine the significance of the difference between the control group and rats treated with the test compounds.
- *a Values were significantly different from normal control at P< 0.01

Results

Anti- inflammatory activity

Both dose of *Lasunathabitha kudineer* at a doses of 15 ml/kg and 30ml/kg were tested for their Anti- inflammatory activity by using carrageenan Induced rat paw edema method and the results are tabulated in Table no 1. The results reveals that both doses of *Lasunathabitha kudineer* possesses significant Anti-inflammatory activity when compared to control group at p<0.01.

Reference

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EVALUATION OF ANTIHISTAMINIC AND ANTIANAPHYLACTIC ACTIVITY OF SIDDHA FORMULATION OF *LASUNATHABITHA KUDINEER*

Introduction

Allergy is one of the common diseases that affect mankind with diverse manifestations. The prevalence of allergy and asthma has risen in the recent years despite an improvement in the general health of the population.[1] Allergic diseases are responsible for significant morbidity and have severe economic impact.[2] Various epidemiological studies have identified the causes for an increase in the prevalence of upper and lower respiratory tract allergic diseases. Some of the postulated reasons are increasing environmental pollution [3] and increased predisposition of individuals producing excessive Ig_E through a major change in the gene pool, changing lifestyles, and an increasing awareness of the disorders.[4] Intensive research during the last several decades has highlighted the role of lymphocytes, immunoglobulins, mast cells, and various autacoids in the etiopathogenesis of allergic conditions. Inspite of the voluminous literature on the subject, the treatment of allergic diseases continues to be far from satisfactory. The available treatment options for upper and lower respiratory tract allergic diseases have major limitations owing to low efficacy, associated adverse events, and compliance issues.[5]

AYUSH, an Indian system of medicine, has described several drugs from indigenous plant sources for use in the treatment of bronchial asthma and allergic disorders. In the present study, the effect of Siddha formulation of *Lasunathabitha kudineer* were studied on the active anaphylaxis and mast cell stabilization in rats, and histamine-induced bronchospasm in guinea pigs.

Materials and Methods

Animals

Inbred Wistar rats (175–200 g) and guinea pigs (400–600g) of either sex housed in standard conditions (temperature22 ± 2° C, relative humidity 60 ± 5% and 12 h light/dark cycle) were used. They were fed with standard pellet diet and

water ad libitum. The Institutional Animal Ethics Committee approved the experimental protocol. Histamine and horse serum were procured from Sigma Chemicals and toluidine blue from Loba-Chemie, Mumbai. Elisa kit for Ig_E was supplied by Orion diagnostics, Espoc, Finland. All other chemicals and reagents were procured from Hi-Media Laboratories limited, Mumbai.

Mast cell stabilizing activity

Treatment protocol

Twenty-four rats were divided into Five groups of six animals in each group.

Group I served as control and received vehicle (water).

Group II (sensitized control group)

GroupIII served as the treatment control, which was treated with ***Lasunathabitha kudineer***

at a dose of 15 ml/kg body weight, in oral route.

Group IV served as the treatment control, which was treated with ***Lasunathabitha kudineer***

at a dose of 30 ml/kg body weight, in oral route.

In group11 to group 1V were sensitized by injecting 0.5 ml of horse serum subcutaneously along with 0.5 ml of triple antigen containing 20,000 million Bordetella pertussis organisms (Serum Institute of India Ltd.,Pune), Once a day for 14 days.

On day 14, the rats were sacrificed 2 h after the treatment and the intestinal mesentry was taken out for the study on mast cells. Mesentries along with intestinal pieces were excised and kept in Ringer Locke solution (NaCl 154, KCl 5.6, CaCl2 2.2, NaHCO3 6.0, glucose 5.55 mM/L of distilled water) at 37oC. The mesenteric pieces were challenged with 5% horse serum for 10 min after which the mast cells were stained with 1.0% toluidine blue and examined microscopically for the number of intact and degranulated mast cells.[6]

Histamine-induced bronchospasm in guinea pigs

Bronchospasm was induced in guinea pigs by exposing them to 1% histamine aerosol under constant pressure (1 kg/cm2) in an aerosol chamber (24 × 14 × 24 cm) made of perplex

Glass,of the three groups of six animals each.

Group I served as control.

GroupII served as the treatment control, which was treated with ***Lasunathabitha kudineer***

at a dose of 15 ml/kg body weight, in oral route.

Group III served as the treatment control, which was treated with ***Lasunathabitha kudineer***

at a dose of 30 ml/kg body weight, in oral route.

The animals were exposed to 1% histamine aerosol under constant pressure (1 kg/cm2) in an aerosol chamber on day 0 without any treatment. The end point,preconvulsive dyspnea (PCD) was determined from the time of aerosol exposure to the onset of dyspnea leading to the appearance of convulsions.[7] As soon as PCD commenced, the animals were removed from the chamber and exposed to fresh air. This PCD was taken as day 0 value. On days 1 and 5,

2 h after the administration of the drug, the time for the onset of PCD was recorded as on day 0.

Statistical analysis

The results of various studies were expressed as mean ± SEM and analyzed statistically using one-way ANOVA, followed by Newmann keul's multiple range tests. $P<0.05$ was considered statistically significant.The analysis was performed using Graphpad Prism software package (Version 4.0).

RESULTS

Mast cell stabilizing potential of ***Lasunathabitha kudineer*** Antigen challenge resulted in significant degranulation of the mesentric mast cells. Pretreatment of sensitized animals with ***Lasunathabitha kudineer*** at a dose of

15ml and 30ml/kg, p.o., for 2 weeks resulted in a significant reduction in the number of disrupted mast cells (P <0.001) when challenged with horse serum.

Effect on histamine-induced bronchospasm

Lasunathabitha kudineer at a dose of 15ml and 30ml/kg p.o., significantly prolonged the latent period of PCD (P <0.001) as compared to control, following exposure to histamine aerosols on day 5 [Table no. 2].

Discussion

Experimental animal model of asthma is characterized by allergen-induced immediate airway constriction and late airway reactivity to a pharmacological vasoconstrictor such as histamine and leukotrienes. Histamine is a central mediator in the pathogenesis of allergic and inflammatory disorders. In the present study, ***Lasunathabitha kudineer*** prolonged the latent period of PCD in guinea pigs following histamine aerosol. This may be suggestive of an antihistaminic activity following treatment with ***Lasunathabitha kudineer*** .

Antigen challenge, in sensitized animals, results in the degranulation of mast cells, which is an important feature of anaphylaxis. In the present study, ***Lasunathabitha kudineer*** showed marked protection against the mast cell degranulation following antigen challenge in sensitized animals. Mast cell stabilizing activity of ***Lasunathabitha kudineer*** may be attributed to the presence of active constituents which are known for their mast cell stabilizing potential against antigen–antibody reaction and/or due to the suppression of IgE antibody production, which is responsible for degranulation mast cells.[8]

This antianaphylactic and antihistaminic effect may be caused by the stabilization of the mast cell membrane, suppression of IgE, and inhibition of pathological effects induced by the release of inflammatory mediators in ***Lasunathabitha kudineer*** treated animals. All the above findings lend credence to the beneficial use of ***Lasunathabitha kudineer*** in the treatment of asthma and related conditions.

However, further studies with other experimental models, especially to explore the role of cytokines are warranted to substantiate the antiasthmatic and antiallergic activity of ***Lasunathabitha kudineer*** .

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TABLE NO:1 EFFECT OF *Lasunathabitha kudineer*,ON MAST CELL STABILIZATION IN SENSITIZED RATS

GROUPS	MAST CELLS	
	INTACT	DISRUPTED
NORMAL CONTROL	82.30±3.85	16.35±0.90
SENSITIZED RATS	11.95±0.80	86.75±2.60
***Lasunathabitha kudineer* 15ml/kg**	63.15±2.42*a	34.55±1.35*a
***Lasunathabitha kudineer* 30ml/kg**	62.30±2.25*a	35.30±1.20*a

Values are expressed as Mean±S.E.M *a significantly different from sensitized control at $p<0.01$

TABLE NO 2 : Effect of *Lasunathabitha kudineer* on histamine induced bronchospasm in guinea pigs.

GROUPS	PRE-CONVULSION DYSPNEA (PCD)(SEC)		
	DAY 0	DAY 1	DAY 5
GP 1	172.25±7.30	264±9.5	210.15±9.5
GP 2 (***Lasunathabitha kudineer 15ml/kg***)	180.28±6.55	210±6.6	420±15.0*a
GP3 (***Lasunathabitha kudineer 30ml/kg***)	178±6.40	220±8.2	412±14.0*a

Values are expressed as Mean ±S.E.M *a Significantly different from control on day 5 at $p<0.001$

ANTIMICROBIAL STUDIES

AIM

To study the Anti-microbial action of **Lasunathabitha Kudineer** against **Streptococcus, Staphylococcus.**

MEDIUM

Muller Hinton agar

COMPONENTS OF MEDIUM

Beef extract	-	300gms/lit
Agar	-	17gms/lit
Starch	-	1.5gms/lit
Casein Hydroxylate	-	17.5gms/lit
Distilled water	-	1000ml
PH	-	7.6

PROCEDURE

The media was prepared from the components and poured and dried on a petri dish. The organism was streaked on the medium and the test drug (1gm drug in 10ml water) was placed on the medium. This is incubated at 37^{C} for one over night and observed for night and observed for the susceptibility shown up clearance around the drug.

RESULT:

The test drug **Lasunathabitha Kudineer** was Moderately sensitive against **Streptococcus and Staphylococcus.**

MALAR MICRO DIAGNOSTIC CENTRE

65,sri Ram Popular Road,Manakavalampillai Nagar,Palayamkottai,
Ph.lab,0462-2583954,Resi,2583955 Mobile 9524591925

Name : Dr.M.Sugavaneshwari,MD(S)

Anti Microbial Study

Method : Kirby Bauer

Report

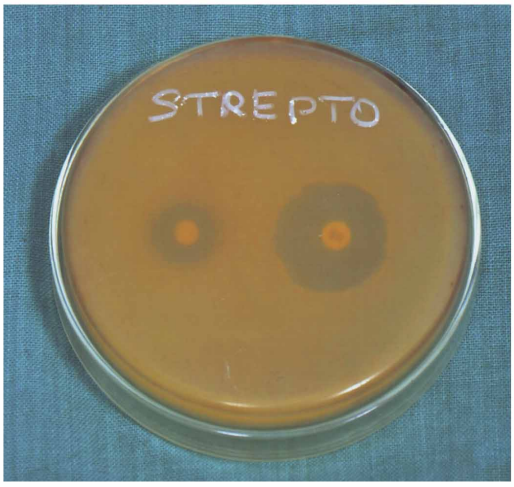
S.No	Drug	Organism	Sensitivity	Zone size of Drug	Zone size of Control (Amikacin)
1.	Lasunathabitha Kudineer	Strepto coccus pneumoniae	Moderate Resistant	10mm	17mm
2.	Lasunathabitha Kudineer	Staphylo coccus aureus	Moderate Resistant	14mm	8mm

Dr.R.Napoleon,MD.,
Consultant Microbiologist

Dear Doctor,

Thank you for your reference. If the result is not correlating with the clinical impression, please inform us to repeat the test with a fresh sample

Staphylococcus



Streptococcus

CME PROGRAMME FOR TEACHING FACULTIES

Sponsored by **Ministry of AYUSH,** *Govt. of India, New Delhi*

Organised by

DEPARTMENT OF KUZHANTHAI MARUTHUVAM (PAEDIATRICS)
& MAGALIR MARUTHUVAM
GOVT. SIDDHA MEDICAL COLLEGE, Palayamkottai

CERTIFICATE

Certified that Dr. SUGAVANESHWARI. M

PG SCHOLAR - FINAL YEAR

has successfully participated as a Trainee on the six days of continuing Medical Education training programme for Teaching faculties from 8th to 13th of February 2016 held at Govt. Siddha Medical College, Palayamkottai.

Prof. Dr. D.K.SOUNDARARAJAN MD (s)
Head of the Department
Kuzhanthai Maruthuvam

Prof. Dr. S.SOUNDARARAJAN MD (s)., BL
Principal

CONTINUING MEDICAL EDUCATION PROGRAMME

Organized by

POST GRADUATE DEPARTMENT OF KUZHANTHAI MARUTHUVAM (PAEDIATRICS)

GOVT. SIDDHA MEDICAL COLLEGE, Palayamkottai

CERTIFICATE

This is to Certify that Dr. SUGAVANESHWARI . M

THIRD YEAR - PG *has actively participated in the continuing Medical Education training programme held on* **22nd June 2016**. *at Govt. Siddha Medical College, Palayamkottai*

*This programme focused on a Seminar on "***Metabolic Illness***"*

~~He~~ / *She successfully presented a paper in the topic* INBORN ERROR METABOLISM

in the session.

22/6/16
Dr. K.SHYAMALA, M.D(s)
Co-ordinator

Prof.Dr. D.K.SOUNDARARAJAN, M.D(s)
Head of the Dept.

22/6/16
Prof.Dr. S.VICTORIA, M.D(s)
Principal

GOVT SIDDHA MEDICAL COLLEGE AND HOSPITAL

PALAYAMKOTTAI

PG. DEPT. OF KUZHANTHAI MARUTHUVAM

CONSENT FORM

An open clinical study to evaluate the safety and efficacy of Siddha sasthric formulation**"LASUNATHABITHA KUDINEER"** for the management **"LASUNATHABITHAM"**

CERTIFICATE BY INVESTIGATOR

I certify that I have disclosed all the details about the study in the terms readily understood by the parent.

Date ……. **Signature……..**

place ……. **Name ……**

CONSENT OF INFORMANT

I have been informed to my satisfaction, by the attending physician, the purpose of the clinical trial, and the nature of drug treatment and follow-up including the laboratory investigations to be performed to monitor and safeguard my Son / Daughter body functions.

I am aware of my right to opt out of the trial at any time during the course of the trial without having to give the reasons for doing so.

I am, exercising my free power of choice; hereby give my consent to be included as a subject in the clinical trial of "LASUNATHABITHA KUDINEER"for the treatment of "LASUNATHABITHAM"

Informant Signature:…….

Date: **Informant Name: …….**

Place: **Patient Name:…….**

Signature of Witness **Relationship:……**

GOVERNMENT SIDDHA MEDICAL COLLEGE

POST–GRADUATE DEPARTMENT PALAYAMKOTTAI,

TIRUNELVELI – 627 002.

Branch IV- KUZHANDHAI MARUTHUVAM.

PROFORMA OF CASE SHEET FOR LASUNATHABITHAM

Ward	:	Religion	:
I.P.No	:	Nationality	:
Bed No	:	Date of admission	:
Name	:	Date of discharge	:
Age	:	Diagnosis	:
Sex	:	Result	:
Father's Name	:	Medical Officer	:
Occupation	:		
Income	:		
Address	:		
Informant	:		

Complaints and Duration :

History of Present illness :

History of Previous illness :

Birth History :

1) Antenatal history

2) Perinatal history

3) Neonatal history

Developmental history :

Dietic history :

Feeding history :

Family history :

Socio economic history :

Immunization history :

General conditions on examination:

Consciousness :

Decubitus :

Stature :

Height :

Weight :

Head Circumference:

Mid arm circumference:

Nutrition :

Facies :

Skin changes :

Pallor :

Cyanosis :

Jaundice :

Brythema :

Haemangioma :

Lymphadenopathy :

Clubbing :

Koilonychia :

Jugular Vein pulsation :

Abdominal distention :

Engorge veins :

Pedal Oedema :

Temperature :

Pulse

Rate/Minute :

Rhythm :

Volume :

Character :

Peripheral pulses :

Heart rate :

Rate/Minute :

Respiratory Rate

Rate/Minute :

Type :

Character :

Blood Pressure :

	Right	Left
Upper limb :		
Lower limb :		

Congenital abnormalities (if any)

SIDDHA ASPECTS

Nilam:

Kurinchi :

Mullai :

Marutham :

Neithal :

Palai :

Paruvakalam:

Kaar (Aavani – Purattasi) :

Koothir (Iyppasi – Karthigai) :

Munpani (Markazhi – Thai) :

Pinpani (Masi – Panguni) :

Elavenil (Chithirai – Vaikasi) :

Muthuvenil (Aani – Aadi) :

Udal Nilai

Vatham :

Pitham :

Kabam :

Kalappu :

Gunam:

Sathuvam :

Rasatham :

Thamasam :

Mummalam

Malam :

Moothiram :

Viyarvai :

Poripulangal

Mei :

Vaai :

Kan :

Mooku :

Sevi :

Kanmendhriyam:

Kai :

Kaal :

Vaai :

Eruvaai :

Karuvaai :

Pira Uruppukalin nilai:

Iruthayam :

Puppusam :

Eraippai :

Kalleeral :

Manneeral :

Kudal :

Siruneeragam :

Siruneerpai :

Moolai :

Uyir Thathukkal:

Vatham:

Pirannan :

Abannan :

Viyannan :

Uthannan :

Samannan :

Naagan :

Koorman :

Kirukaran :

Dhevathathan :

Dhananjeyan :

Pitha:

Analam :

Ranjegam :

Sathagam :

Pirasagam :

Alosagam :

Kapha:

Avalambagam :

Kilethagam :

Pothagam :

Tharpagam :

Sandhigam :

Udal Thathukkal:

Saaram :

Senneer :

Oon :

Kozhuppu :

Enbu :

Moolai :

Sukkilam/Suronitham :

Ennvagai Thervugal:

Naa :

Niram :

Mozhi :

Vizhi :

Sparisam :

Malam

Niram :

Edai :

Erugal :

Elagal :

Moothiram

Neerkuri :

Niram :

Edai :

Manam :

Nurai :

Enjal :

Neikuri :

Naadi :

MODERN ASPECTS

SYSTEMIC EXAMINATION:

EXAMINATION OF RESPIRATORY SYSTEM:

EXAMINATION OF UPPER RESPIRATORY TRACT:

GENERAL EXAMINATION

Sore Throat :

Fever :

Dysphagia :

Cough :

Nasal Stuffiness :

Rhinitis :

Headache :

Dyspnea :

Wheezing :

Coryza :

LOCAL EXAMINATION

NECK

Tonsillar node enlargement :

Tenderness :

Other cervical glands :

Anterior :

Posterior :

Upper :

Superficial :

Deep :

EAR

Peri auricular node :

Discharge :

NOSE

Rhinitis :

Pus :

Mucous :

Ulceration :

Polyp :

MOUTH

Tonsils

Surface :

Inflammation :

Redness :

Follicles :

Ulceration :

Haemorrhage :

Mucous coating :

Uvula

Inflammation :

Elongation :

Pharynx

Inflammation :

Redness :

Ulceration :

Growth :

Tongue

Coating :

Ulceration :

Growth :

Teeth

Caries teeth :

Gums

Gingivitis :

OTHERS:

Past history of Tonsillitis

Recurrence of attack

Familial history of Allergy

Associated Joint Pain

Associated haemorrhagic spots or follicles

Associated Nasal Allergy

Personal Habits

Tendency for sweets, chocolates, cold stuffs

Personal hygiene

Living conditions

EXAMINATION OF CARDIOVASCULAR SYSTEM

EXAMINATION OF CENTRAL NERVOUS SYSTEM

EXAMINATION OF ABDOMEN

EXAMINATION OF URINARY SYSTEM

Laboratory Investigations:

Blood

Total WBC Count :

Differential WBC Count :

E. S.R ½ hr :

1hr :

Hemoglobin percentage :

Urine:

Albumin :

Sugar :

Deposit :

Daily Progress

Date	Symptoms	Medicine

Advice

GOVERNMENT SIDDHA MEDICAL COLLEGE AND HOSPITAL

PALAYAMKOTTAI

BRANCH-IV KUZHANDHAI MARUTHUVAM

Admission – Discharge Sheet

Name of the Medical Unit:

I.P. NO	:	Occupation	:
Bed no	:	Income	:
Ward	:	Nationality	:
Name	:	Religion	:
Age	:	Date of Admission	:
Sex	:	Date of discharge	:
Permanent address:		Diagnosis	:
Temporary address:		Results	:
Informant	:	Medical officer	:

S.No	CLINICAL FEATURES(Signs and Symptoms)	During Admission	During Discharge
1.	Sore throat		
2.	Cough		
3.	Cough with expectoration		
4.	Dysphagia		
5.	Fever		
6	Headache		
7	Earache		
8.	Anorexia		
9.	Swollen & Erythema of the tonsils		
10.	Cervical lymphadenitis		

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- Yugi vaithiya chinthamani
- Siddha Maruthuvam - Dr.KuppusamyMudaliar
- Noi nadal noimudal nadalthiratu – Dr.M.Shanmugavelu
- Gunapadam mooligai vaguppu – Dr.MurugesaMudaliar
- Gunapadam Thathu Jeeva vaguppu – Dr.R.Thiagarajan
- Nagamunivar Thalainoi Maruthuvam
- Thanvandiri vaithiyam
- Siddha maruthuvangasurukkam – Dr.Uthamarayan
- Thotrakramaaraichiyum siddha maruthuvavaralarum –Dr.Uthamarayan
- Pillaipini Maruthuvam – Dr.R.Sundarrajan
- Noigaluku siddha parikaram – Dr.M.Shanmugavelu
- Madalai noi thoguthi
- Noi illa neri – Dr.Durairasan
- Sarabendirar vaithiya muraigal-siroroga sigichai
- Sarabendirar vaithya muraigal-virana karappan roga sigichai
- Kuzhanthaikan,sevi,thondainoigal – Dr.S.Chidambarathanupillai
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